

N60201.AR.000282  
NS MAYPORT  
5090.3a

RESOURCE CONSERVATION AND RECOVERY ACT FACILITY ASSESSMENT SAMPLING  
VISIT REPORT GROUP 1 AND 2 SOLID WASTE MANAGEMENT UNITS NS MAYPORT FL  
12/1/1995  
ABB ENVIRONMENTAL SERVICES

32228-000

19.03.00.0009

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)  
FACILITY ASSESSMENT SAMPLING VISIT REPORT**

**GROUPS I and II**

**GROUP I**

**SOLID WASTE MANAGEMENT UNITS 26, 49, 50, AND 56**

**GROUP II**

**SOLID WASTE MANAGEMENT UNITS 19, 28, AND 48**

**U.S. NAVAL STATION  
MAYPORT, FLORIDA**

**Unit Identification Code No. N60201**

**Contract No. N62467-89-D-0317/028**

**Prepared by:**

**ABB Environmental Services, Inc.  
2590 Executive Center Circle, East  
Tallahassee, Florida 32301**

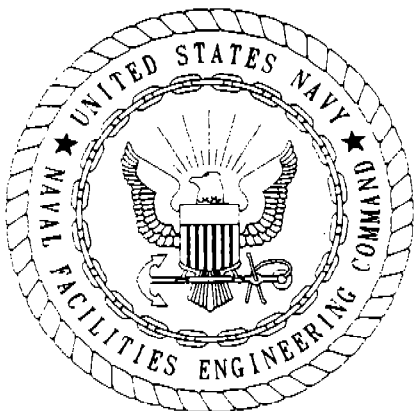
**Prepared for:**

**Department of the Navy, Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive  
North Charleston, South Carolina 29418**

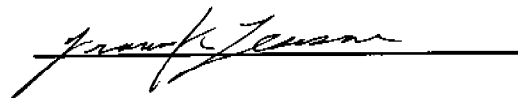
**David Driggers, Engineer-in-Charge**

**December 1995**





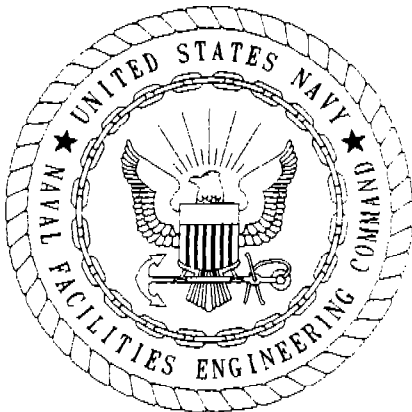
This document Resource Conservation and Recovery Act Facility Assessment Sampling Visit, Group I and II SWMUs, U.S. Naval Station, Mayport Florida has been prepared under the direction of a Florida Registered Professional Geologist. The work and professional opinions rendered in this report were conducted or developed in accordance with commonly accepted procedures consistent with applicable standards of practice. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the assessment and recommendations in this document. This document was prepared for U.S. Naval Station, Mayport, Florida, and should not be construed to apply to any other site.



Francis K. Lesesne  
Professional Geologist  
State of Florida License No. 1020

Date: 28 July 95



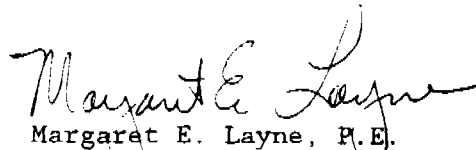


CERTIFICATION OF TECHNICAL  
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/028 are complete and accurate and comply with all requirements of this contract.

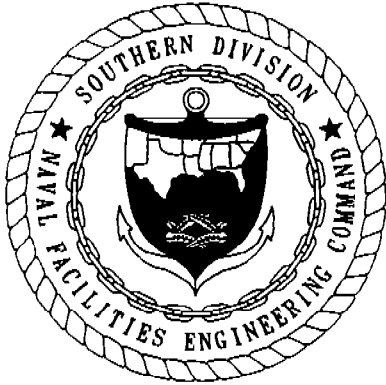
DATE: July 25, 1995

NAME AND TITLE OF CERTIFYING OFFICIAL:

  
Margaret E. Layne, P.E.  
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL:

  
Francis K. Lesesne, P. G.  
Project Technical Lead



## FOREWORD

To meet its mission objectives, the U.S. Navy performs a variety of operations, some requiring the use, handling, storage, or disposal of hazardous materials. Through accidental spills and leaks and conventional methods of past disposal, hazardous materials may have entered the environment in ways unacceptable by today's standards. With growing knowledge of the long-term effects of hazardous materials on the environment, the Department of Defense (DOD) initiated various programs to investigate and remediate conditions related to suspected past releases of hazardous materials at their facilities.

One of these programs is the Installation Restoration (IR) program. This program complies with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA). The acts, passed by Congress in 1980 and 1986, respectively, established the means to assess and cleanup hazardous waste sites for both private-sector and Federal facilities. These acts are the basis for what is commonly known as the Superfund Program.

Originally, the Navy's part of this program was called the Navy Assessment and Control of Installation Pollutants (NACIP) program. Early reports reflect the NACIP process and terminology. The Navy eventually adapted the program structure and terminology of the standard IR program.

The IR program is conducted in several stages as follows.

- The Preliminary Assessment (PA) identifies potential sites through record searches and interviews.
- A Site Inspection (SI) then confirms which areas contain contamination, constituting actual "sites". (Together, the PA and SI steps were called the Initial Assessment Study (IAS) under the NACIP program.)
- Next, the Remedial Investigation and the Feasibility Study (RI/FS) together determine the type and extent of contamination, establish criteria for cleanup, and identify and evaluate any necessary remedial action alternatives and their costs. As part of the RI/FS, a Risk Assessment identifies potential effects on human health or the environment to help evaluate remedial action alternatives.

- The selected alternative is planned and conducted in the remedial design and remedial action stages. Monitoring then ensures the effectiveness of the effort.

A second program to address present hazardous material management is the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. This program is designed to identify and clean up releases of hazardous substances at RCRA-permitted facilities. RCRA ensures that solid and hazardous wastes are managed in an environmentally sound manner. The law applies primarily to facilities that generate or handle hazardous waste.

The RCRA program is conducted in the following three stages.

- The RCRA Facility Assessment (RFA) identifies solid waste management units (SWMUs), evaluates the potential for releases of contaminants, and determines the need for future investigations.
- The RCRA Facility Investigation (RFI) then determines the nature, extent, and fate of contaminant releases.
- The Corrective Measures Study (CMS) identifies and recommends measures to correct the release.

The hazardous waste investigations at Naval Station Mayport are presently being conducted under the RCRA Corrective Action Program. Earlier preliminary investigations had been conducted at Naval Station Mayport under the Navy's NACIP program and IR program following Superfund guidelines. In 1988, in coordination with the U.S. Environmental Protection Agency (USEPA) and the Florida Department of Environmental Regulation (FDER; now known as the Florida Department of Environmental Protection [FDEP]), the hazardous waste investigations were formalized under the RCRA program.

Mayport is conducting the cleanup at their facility by working through the Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). The USEPA and the FDEP oversee the Navy environmental program. All aspects of the program are conducted in compliance with State and Federal regulations, as ensured by the participation of these regulatory agencies.

Questions regarding the RCRA program at NAVSTA Mayport should be addressed to Mr. David Driggers, Code 1852, at (803) 743-0501.

## EXECUTIVE SUMMARY

This Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit (RFA SV) report (Confirmatory Sampling Report) addresses the following solid waste management units (SWMUs).

### Group I SWMUs

- SWMU 26, Landfill C
- SWMU 49, Flight Line Retention Ponds
- SWMU 50, East and West Dredge Spoil Disposal Areas
- SWMU 56, Building 1552 Accumulation Area

### Group II SWMUs

- SWMU 19, Naval Aviation Depot (NADEP) Blasting Area
- SWMU 28, Defense Reutilization and Marketing Office (DRMO) Yard
- SWMU 48, Former Chemistry Laboratory Accumulation Area

The confirmatory sampling events were conducted in accordance with the RCRA Corrective Action Program at Naval Station (NAVSTA) Mayport described in the Corrective Action Management Plan (ABB Environmental Services, Inc. [ABB-ES]; 1995a), under U.S. Environmental Protection Agency (USEPA) Permit Identification Number FL9 170 024 026.

The RFA/SV activities were conducted because a release of RCRA hazardous substances from these Group I and II SWMUs to the environment was suspected, but not confirmed. The purpose of this report is to describe the sampling activities, findings, conclusions, and recommendations of the RFA/SV activities at the Group I and II SWMUs.

The Group I RFA/SV investigations at NAVSTA Mayport did not find evidence of a significant release of target analytes selected from the Appendix IX (40 Code of Federal Regulations Part 264) Groundwater Monitoring List or USEPA Contract Laboratory Program from SWMU 19, Naval Aviation Depot (NADEP) Blasting Area; SWMU 26, Landfill C; SWMU 28, Defense Reutilization and Marketing Office (DRMO) Yard; SWMU 48, Former Chemistry Laboratory Accumulation Area; and SWMU 56, Building 1552 Accumulation Area. This conclusion is based on the concentration and frequency of detection of the various compounds and elements detected during the investigation, comparison to screening values developed from background samples (surface and subsurface soil, surface water, sediment, and groundwater), human health risk based values, and values developed from evaluation of adverse ecological effects of various chemicals on benthic organisms in sediment. These sites are recommended for no further investigation at this time.

Ecological diversity and aquatic and sediment toxicity testing should be conducted at SWMU 49, Flight Line Retention Pond, and SWMU 50, East and West Dredge Disposal Areas, to assess whether continued discharge from the industrial area is adversely affecting the ecology of the two SWMUs.

## TABLE OF CONTENTS

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

<u>Chapter</u>	<u>Title</u>	<u>Page No.</u>
1.0	INTRODUCTION . . . . .	1-1
1.1	RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CORRECTIVE ACTION PROGRAM . . . . .	1-1
1.2	PREVIOUS INVESTIGATIONS AT GROUPS I AND II SWMUS . . . . .	1-4
1.2.1	SWMU Group I Investigations . . . . .	1-4
1.2.2	SWMU Group II Investigations . . . . .	1-6
1.3	RFA SV REPORT FORMAT . . . . .	1-6
2.0	SOLID WASTE MANAGEMENT UNIT (SWMU) 26, LANDFILL C . . . . .	2-1
2.1	SITE DESCRIPTION AND BACKGROUND . . . . .	2-1
2.2	RFA SV FIELD INVESTIGATIONS . . . . .	2-1
2.3	FINDINGS . . . . .	2-3
2.4	PRELIMINARY RISK EVALUATION . . . . .	2-24
2.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	2-25
2.5.1	Conclusions . . . . .	2-25
2.5.2	Recommendations . . . . .	2-26
3.0	SWMU 49, FLIGHT LINE RETENTION PONDS . . . . .	3-1
3.1	SITE DESCRIPTION AND BACKGROUND . . . . .	3-1
3.2	RFA SV FIELD INVESTIGATIONS . . . . .	3-2
3.3	FINDINGS . . . . .	3-5
3.4	PRELIMINARY RISK EVALUATION . . . . .	3-23
3.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	3-26
3.5.1	Conclusions . . . . .	3-26
3.5.2	Recommendations . . . . .	3-27
4.0	SWMU 50, DREDGE SPOIL DISPOSAL AREAS . . . . .	4-1
4.1	SITE DESCRIPTION AND BACKGROUND . . . . .	4-1
4.2	RFA SV FIELD INVESTIGATIONS . . . . .	4-3
4.3	FINDINGS . . . . .	4-4
4.3.1	SWMU 50 Surface Water and Sediment Samples . . . . .	4-4
4.4	PRELIMINARY RISK EVALUATION . . . . .	4-8
4.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	4-22
4.5.1	Conclusions . . . . .	4-22
4.5.2	Recommendations . . . . .	4-23
5.0	SWMU 56, BUILDING 1552 ACCUMULATION AREA . . . . .	5-1
5.1	SITE DESCRIPTION AND BACKGROUND . . . . .	5-1
5.2	RFA SV FIELD INVESTIGATIONS . . . . .	5-1
5.3	FINDINGS . . . . .	5-3
5.4	PRELIMINARY RISK EVALUATION . . . . .	5-18
5.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	5-22
5.5.1	Conclusions . . . . .	5-22
5.5.2	Recommendations . . . . .	5-23

## TABLE OF CONTENTS (Continued)

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

<u>Chapter</u>	<u>Title</u>	<u>Page No.</u>
6.0	SWMU 19, NAVAL AVIATION DEPOT (NADEP) BLASTING AREA . . . . .	6-1
6.1	SITE DESCRIPTION AND BACKGROUND . . . . .	6-1
6.2	RFA SV FIELD INVESTIGATIONS . . . . .	6-1
6.3	FINDINGS . . . . .	6-4
6.4	PRELIMINARY RISK EVALUATION . . . . .	6-15
6.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	6-20
	6.5.1 Conclusions . . . . .	6-20
	6.5.2 Recommendations . . . . .	6-20
7.0	SWMU 28, DEFENSE REUTILIZATION AND MARKETING OFFICE (DRMO) YARD . .	7-1
7.1	SITE DESCRIPTION AND BACKGROUND . . . . .	7-1
7.2	RFA SV FIELD INVESTIGATIONS . . . . .	7-1
7.3	FINDINGS . . . . .	7-4
7.4	PRELIMINARY RISK EVALUATION . . . . .	7-28
7.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	7-37
	7.5.1 Conclusions . . . . .	7-37
	7.5.2 Recommendations . . . . .	7-38
8.0	SWMU 48, FORMER CHEMISTRY LABORATORY ACCUMULATION AREA . . . . .	8-1
8.1	SITE DESCRIPTION AND BACKGROUND . . . . .	8-1
8.2	RFA SV FIELD INVESTIGATIONS . . . . .	8-1
8.3	FINDINGS . . . . .	8-3
8.4	PRELIMINARY RISK EVALUATION . . . . .	8-19
8.5	CONCLUSIONS AND RECOMMENDATIONS . . . . .	8-21
	8.5.1 Conclusions . . . . .	8-21
	8.5.2 Recommendations . . . . .	8-21
9.0	SUMMARY . . . . .	9-1
9.1	GROUP I SWMUS . . . . .	9-1
	9.1.1 SWMU 26, Landfill C . . . . .	9-1
	9.1.2 SWMU 49, Flight Line Retention Ponds . . . . .	9-1
	9.1.3 SWMU 50, East and West Dredge Spoil Disposal Areas . . .	9-2
	9.1.4 SWMU 56, Building 1552 Accumulation Area . . . . .	9-3
9.2	GROUP II SWMUS . . . . .	9-3
	9.2.1 SWMU 19, Naval Aviation Depot (NADEP) Blasting Area . .	9-3
	9.2.2 SWMU 28, Defense Reutilization and Marketing Office Yard . . . . .	9-4
	9.2.3 SWMU 48 Former Chemistry Laboratory Accumulation Area .	9-4

## REFERENCES

TABLE OF CONTENTS (Continued)

Groups I and II RFA SV Report

U.S. Naval Station

Mayport, Florida

APPENDICES

- Appendix A: Target Analyte List
- Appendix B: Data Summary Tables
- Appendix C: Risk Evaluation Calculations
- Appendix D: AFFF Material Safety Data Sheets
- Appendix E: Dredge Material Disposal Correspondence
- Appendix F: Mayport Turning Basin 1993 Sampling Event
- Appendix G: Groundwater Data
- Appendix H: Response to Regulatory Comments



## LIST OF FIGURES

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Figure	Title	Page No.
1-1	Facility Location Map . . . . .	1-2
1-2	Solid Waste Management Units (SWMUs) . . . . .	1-5
1-3	Group I Solid Waste Management Units (SWMUs) . . . . .	1-7
1-4	Group II Solid Waste Management Units (SWMUs) . . . . .	1-8
2-1	Sampling Locations at SWMU 26, Landfill C . . . . .	2-2
2-2	Monitoring Well Locations and Potentiometric Surface Map of SWMU 26, August 30, 1994 . . . . .	2-6
3-1	1992 Sampling Locations at SWMU 49, Flight Line Retention Ponds . .	3-3
3-2	1994 Surface Water and Sediment Sampling Locations at SWMU 49, Flight Line Retention Ponds . . . . .	3-4
4-1	1992 Sediment and Surface Water Sampling Locations at SWMU 50, Eastern and Western . . . . .	4-2
5-1	1992 and 1994 Sampling Locations at SWMU 56, Building 1552 Accumula- tion Area . . . . .	5-2
5-2	Monitoring Well Locations and Potentiometric Surface Map of SWMU 56, August 30, 1994 . . . . .	5-4
6-1	Location of Soil Samples Collected for Extraction Procedure Toxicity Testing July 1989, SWMU 19, NADEP Blasting Area . . . . .	6-2
6-2	1994 Soil and Sediment Sampling Locations, SWMU 19, NADEP Blasting Area . . . . .	6-5
7-1	1994 Soil and Groundwater Sampling Locations, SWMU 28, DRMO Yard . .	7-2
7-2	Monitoring Well Locations and Potentiometric Surface Map of Solid Waste Management Units (SWMUs) 28 and 48, August 30, 1994 . . . . .	7-6
8-1	1994 Soil and Groundwater Sampling Locations, SWMU 48, Former Chemistry Laboratory . . . . .	8-2

# LIST OF TABLES

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
1-1	Solid Waste Management Units Requiring a Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit (RFA SV) . .	1-3
2-1	Solid Waste Management Unit (SWMU) 26 Water Level Data, August 30, 1994 . . . . .	2-4
2-2	Summary of Monitoring Well Installations Near SWMU 26 . . . . .	2-7
2-3	Average Groundwater Velocities at SWMU 26 . . . . .	2-8
2-4	Organic Analytes Detected in Soil Samples at SWMU 26 . . . . .	2-9
2-5	Inorganic Analytes Detected in Soil Samples at SWMU 26 . . . . .	2-11
2-6	Chemicals of Potential Concern (CPCs) in Surface Soil at SWMU 26 . .	2-13
2-7	Chemicals of Potential Concern (CPCs) in Subsurface Soil Samples at SWMU 26 . . . . .	2-15
2-8	Water Quality Parameters for Groundwater at SWMU 26 . . . . .	2-18
2-9	Semivolatile Organic Analytes Detected in Groundwater Samples at SWMU 26 . . . . .	2-19
2-10	Inorganic Analytes Detected in Groundwater Samples at SWMU 26 . . .	2-20
2-11	Chemicals of Potential Concern (CPCs) in Groundwater at SWMU 26 . .	2-21
2-12	Inorganic Analytes Detected in Groundwater Samples at SWMUs 2 and 3	2-23
3-1	Water Quality Parameters for SWMU 49 Surface Water Samples . . . . .	3-6
3-2	Inorganic Analytes Detected in Surface Water Samples at SWMU 49, 1992 . . . . .	3-7
3-3	Inorganic Analytes Detected in Surface Water Samples at SWMU 49, 1994 . . . . .	3-8
3-4	Chemicals of Potential Concern (CPCs) in Surface Water Samples at SWMU 49 . . . . .	3-9
3-5	Semivolatile Organic Analytes Detected in Sediment Samples at SWMU 49, 1992 . . . . .	3-12
3-6	Pesticides and Polychlorinated Biphenyls (PCBs) Detected in Sediment Samples at SWMU 49, 1992 . . . . .	3-13
3-7	Inorganic Analytes Detected in Sediment Samples at SWMU 49, 1992 . .	3-14
3-8	Organic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994	3-15
3-9	Inorganic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994 . . . . .	3-17
3-10	Chemicals of Potential Concern (CPCs) in Sediment Samples at SWMU 49, 1994 . . . . .	3-19
4-1	Inorganic Analytes Detected in Surface Water Samples at SWMU 50 . .	4-5
4-2	Chemicals of Potential Concern Detected in Surface Water at SWMU 50, April 1992 . . . . .	4-8
4-3	Organic Analytes Detected in Sediment Samples (Saturated) at SWMU 50 . . . . .	4-9
4-4	Inorganic Analytes Detected in Sediment Samples (Saturated) at SWMU 50 . . . . .	4-10
4-5	Organic Analytes Detected in Sediment Samples (Unsaturated) at SWMU 50 . . . . .	4-11
4-6	Inorganic Analytes Detected in the Sediment Samples (Unsaturated) at SWMU 50 . . . . .	4-13

# LIST OF TABLES (Continued)

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Table	Title	Page No.
4-7	Chemicals of Potential Concern in Sediment Samples Collected at SWMU 50 . . . . .	4-16
5-1	Average Groundwater Velocities at SWMU 56 . . . . .	5-5
5-2	Organic Analytes Detected in Soil Samples at SWMU 56 . . . . .	5-7
5-3	Inorganic Analytes Detected in Soil Samples at SWMU 56 . . . . .	5-10
5-4	Chemicals of Potential Concern in Surface Soil at SWMU 56 . . . . .	5-13
5-5	Chemicals of Potential Concern in Subsurface Soil at SWMU 56 . . . . .	5-16
5-6	Water Quality Parameters for Groundwater Samples at SWMU 56 . . . . .	5-19
5-7	Chemicals of Potential Concern in Groundwater at SWMU 56 . . . . .	5-20
6-1	Extraction Procedure Toxicity Analytical Results for Soil Samples at SWMU 19, 1989 . . . . .	6-3
6-2	Organic Analytes Detected in Soil Samples at SWMU 19 . . . . .	6-7
6-3	Inorganic Analytes Detected in Soil Samples at SWMU 19 . . . . .	6-9
6-4	Chemicals of Potential Concern in Surface Soils at SWMU 19 . . . . .	6-11
6-5	Chemicals of Potential Concern in Subsurface Soil at SWMU 19 . . . . .	6-13
6-6	Inorganic Analytes Detected in Sediment Samples at SWMU 19 . . . . .	6-16
6-7	Chemicals of Potential Concern in Sediment Sample at SWMU 19 . . . . .	6-17
6-8	Toxicity Characteristic Leaching Procedure Testing of Black Beauty™ at SWMU 19 . . . . .	6-19
7-1	Summary of SWMU 28 Water Level Data . . . . .	7-5
7-2	Summary of Monitoring Well Installations Near SWMU 28 . . . . .	7-8
7-3	Average Groundwater Velocities at SWMU 28 . . . . .	7-8
7-4	Organic Analytes Detected in Surface Soil Samples Collected at SWMU 28 . . . . .	7-9
7-5	Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28 . . . . .	7-14
7-6	Organic Analytes Detected in Subsurface Soil Samples Collected at SWMU 28 . . . . .	7-19
7-7	Inorganic Analytes Detected in Subsurface Soil Samples Collected at SWMU 28 . . . . .	7-20
7-8	Chemicals of Potential Concern in Surface Soil at SWMU 28 . . . . .	7-22
7-9	Chemicals of Potential Concern in Subsurface Soil at SWMU 28 . . . . .	7-25
7-10	Water Quality Parameters for SWMU 28 Groundwater Samples . . . . .	7-29
7-11	Organic and Inorganic Analytes Detected in Groundwater Samples At SWMU 28 . . . . .	7-31
7-12	Chemicals of Potential Concern in Groundwater at SWMU 28 . . . . .	7-33
8-1	Monitoring Well Installations Near SWMU . . . . .	8-4
8-2	Average Groundwater Velocities at SWMU 48 . . . . .	8-5
8-3	Organic and Inorganic Analytes Detected in Surface Soil Samples at SWMU 48 . . . . .	8-7
8-4	Inorganic Analytes Detected in Subsurface Soil Samples at SWMU 48 . . . . .	8-9
8-5	Chemicals of Potential Concern in Surface Soil at SWMU 48 . . . . .	8-10
8-6	Chemicals of Potential Concern in Subsurface Soil at SWMU 48 . . . . .	8-12
8-7	Water Quality Parameters for Groundwater at SWMU 48 . . . . .	8-14
8-8	Organic Analytes Detected in Groundwater Samples at SWMU 48 . . . . .	8-15

LIST OF TABLES (Continued)

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
8-9	Inorganic Analytes Detected in Groundwater Samples at SWMU 48 . . .	8-16
8-10	Chemicals of Potential Concern in Groundwater at SWMU 48 . . . . .	8-17

## GLOSSARY

AFFF	aqueous film-forming foam
AOC	Area of Concern
APHA	American Public Health Association
AWQC	ambient water quality criteria
bls	below land surface
CAMP	Corrective Action Management Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMS	Corrective Measures Study
COD	chemical oxygen demand
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
EP	Extraction Procedure
ER-L	effects range-low
ER-M	effects range-median
ESE	Environmental Science and Engineering, Inc.
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDER	Florida Department of Environmental Regulation
ft/ft	feet per foot
GIR	General Information Report
HHCPG	human health chemicals of potential concern
HI	hazardous index
HSWA	Hazardous and Solid Waste Amendments of 1984
IAS	Initial Assessment Study
IR	Installation Restoration
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
MPT	Mayport
msl	mean sea level
mg/l	milligrams per liter
µg/kg	micrograms per kilogram
µg/l	micrograms per liter
NACIP	Navy Assessment and Control of Installation Pollutants
NADEP	Naval Aviation Depot
NAVSTA	Naval Station
NCP	National Oil and Hazardous Substances Contingency Plan

## GLOSSARY (Continued)

NEESA	Naval Energy and Environmental Support Activity
NGVD	National Geodetic Vertical Datum
NIRP	Navy Installation Restoration Program
NOAA	National Oceanic and Atmospheric Administration
NOEL	no observed effects level
OVA	organic vapor analyzer
OWTP	oily waste treatment plant
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyl
PEL	probable effects level
QA	quality assurance
QC	quality control
RBC	risk based concentration
RCRA	Resource Conservation and Recovery Act of 1976, as amended
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI/FS	Remedial Investigation/Feasibility Study
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SOUTHNAV- FACENCOM	Southern Division, Naval Facilities Engineering Command
SMP	Site Management Plan
SSL	soil screening level
SV	Sampling Visit
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
VSI	Visual Site Inspection

## 1.0 INTRODUCTION

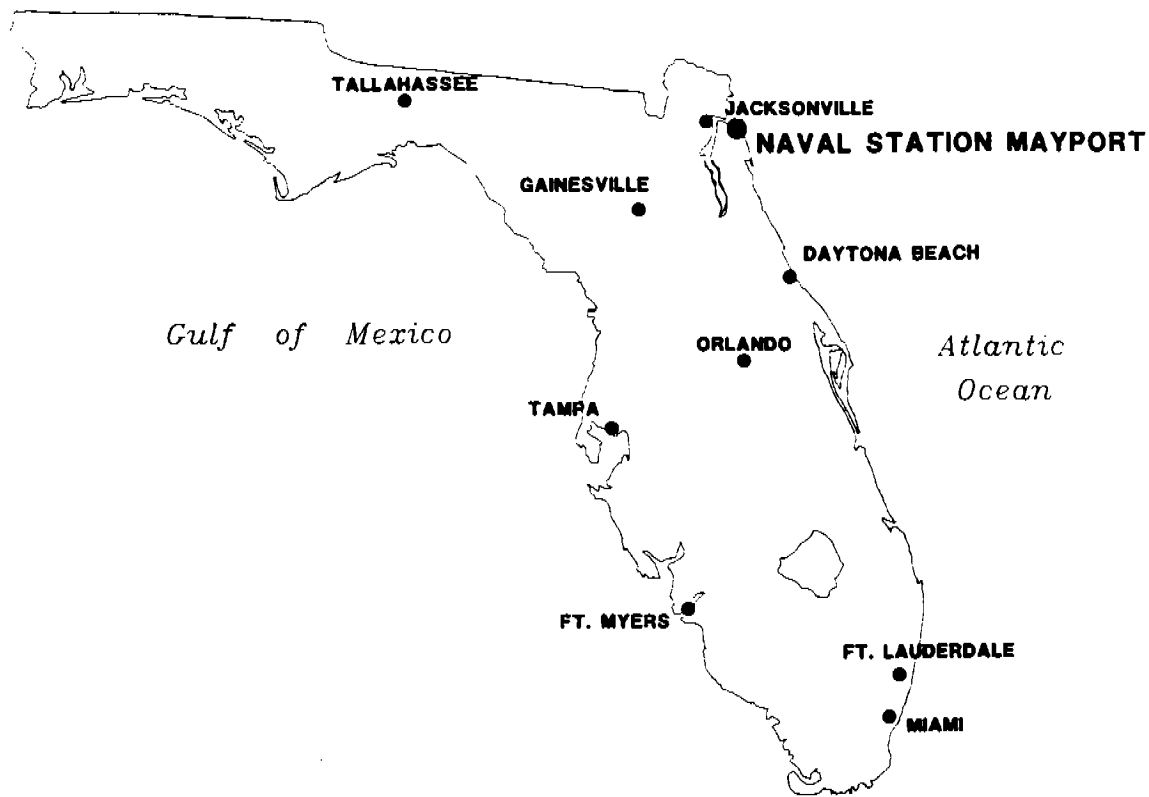
This report presents the site descriptions and background, field investigative activities, findings, preliminary risk evaluation, and conclusions and recommendations of the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) Sampling Visit (SV) for confirmatory sampling at Groups I and II Solid Waste Management Units (SWMUs) at U. S. Naval Station (NAVSTA) Mayport, Florida. NAVSTA Mayport is located in northeastern Duval County, Florida, at the confluence of the St. Johns River and the Atlantic Ocean. Figure 1-1 presents the regional setting of NAVSTA Mayport.

The RCRA Corrective Action Program General Information Report (GIR) for NAVSTA Mayport (ABB-ES, 1995b) provides information common to all four SWMU groups being investigated including background sampling information and analytical methodology, risk assessment approach, and the ecological characterization of NAVSTA Mayport. The NAVSTA Mayport GIR includes a summary of published information including geography, physiography, demographics, climate, regional geology, and hydrogeology; methods and procedures used to conduct the field activities; methodology used to validate analytical data and conduct risk assessments; and characterization of station-wide background conditions including surface and subsurface soil, surface water, sediment, and groundwater that will be used to evaluate the data from each RFA SV SWMU. The information contained in the GIR (ABB-ES, 1995b) is common to all of NAVSTA Mayport's SWMUs, and it will not be repeated in this confirmatory sampling report.

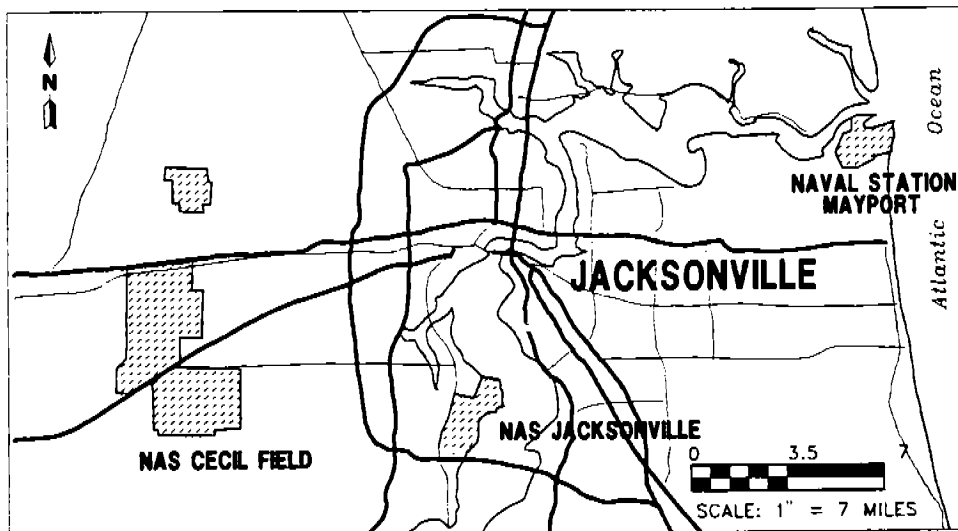
### 1.1 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CORRECTIVE ACTION PROGRAM.

The U.S. Environmental Protection Agency (USEPA) issued permit No. H016-118598 (FL9 170 024 260) to NAVSTA Mayport on March 25, 1988, in accordance with the Hazardous and Solid Waste Amendments (HSWA) of 1984. The permit was revised and reissued on June 15, 1993 (USEPA, 1988a). An RFA Visual Site Inspection (VSI) for NAVSTA Mayport was conducted on behalf of the USEPA Region IV by their contractor, A.T. Kearney, Inc. (A.T. Kearney, 1989). The RFA identified 56 SWMUs and 2 areas of concern (AOC) at NAVSTA Mayport. Eighteen SWMUs were determined to require an RCRA Facility Investigation (RFI) because hazardous substance releases to the environment were confirmed and required further characterization to determine the nature and extent of contamination. Fifteen SWMUs were determined not to require further action because no release of hazardous substances to the environment had occurred. Twenty-three SWMUs were determined to require further investigation because hazardous substance releases to the environment were suspected but not confirmed. RFA SVs have been conducted at 7 of these 23 sites to confirm the presence or absence of a release(s) to the environment (Table 1-1). SWMU 51 consists of petroleum underground storage tanks and appurtenances and is being managed under a different program of RCRA (e.g., 40 Code of Federal Regulations [CFR], Part 280, Subtitle C, *Regulation of Underground Storage Tanks*). The other 15 SWMUs will be investigated during subsequent RFA SVs.

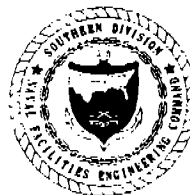
Due to the number of SWMUs at NAVSTA Mayport, the diversity of their past and/or present operations, and the magnitude of permit requirements, the USEPA recommended that a phased approach be used to implement RFI, RFA SV, and other corrective action activities. A Corrective Action Management Plan (CAMP) was prepared that describes the phased approach, proposed schedule, and strategy to



NOT TO SCALE



**FIGURE 1-1  
FACILITY LOCATION MAP**



**RCRA FACILITY ASSESSMENT  
REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION  
MAYPORT, FLORIDA**

000100/KCP-WDW-GLC/3-7-95



**Table 1-1**  
**Solid Waste Management Units Requiring a Resource Conservation and Recovery Act (RCRA)**  
**Facility Assessment Sampling Visit (RFA SV)**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Group I RFA SV Solid Waste Management Units		RFA SV Conducted (Yes/No)
26	Landfill C	Yes
49	Flight Line Retention Ponds	Yes
50	East and West Dredge Spoil Disposal Areas	Yes
56	Building 1552 Accumulation Area	Yes
Group II RFA SV Solid Waste Management Units		RFA SV Conducted (Yes/No)
19	Naval Aviation Depot (NADEP) Blasting Area	Yes
28	Defense Reutilization Marketing Office (DRMO) Yard	Yes
48	Former Chemistry Laboratory Accumulation Area	Yes
51	Waste Oil Tanks	No <sup>1</sup>
Group III RFA SV Solid Waste Management Units		RFA SV Conducted (Yes/No)
18	Fleet Training Center (FTC) Diesel Generator Sump	No
20	Hobby Shop Drain	No
21	Hobby Shop Scrap Storage Area	No
23	Jacksonville Shipyard, Inc. (JSI), Area	No
24	North Florida Shipyard, Inc. (NFSI), Area	No
25	Atlantic Marine, Inc. (AMI), Area	No
29	Oily Waste Pipeline Break	No <sup>1</sup>
44	Wastewater Treatment Facility Clarifiers 1 and 2	No
45	Sludge Drying Beds	No
46	Shore Intermediate Maintenance Activity (SIMA) Engine Drain Sump	No
52	Public Works Department (PWD) Service Station Storage Area	No <sup>1</sup>
Group IV RFA SV Solid Waste Management Units		RFA SV Conducted (Yes/No)
47	Oily Waste Collection System	No
53	Sewer Pipelines	No
54	Oil/Water Separators	No
55	Storm Sewer and Drainage System	No
AOC A	Fuel Distribution System	No <sup>2</sup>
AOC B	Underground Product Storage Tanks	No <sup>2</sup>

<sup>1</sup> SWMUs 29, 51, and 52 area being assessed under Chapter 62-770, Florida Administrative Code (FAC) (State Underground Petroleum Environmental Response).

<sup>2</sup> Area of concern (AOC) requires assessment to determine if confirmatory sampling is warranted.

Note: AOC = Area of Concern.

implement the RCRA Corrective Action Program at NAVSTA Mayport. The original CAMP is located in Appendix F of Volume I of the USEPA-approved RFI workplan (ABB-ES, 1991). The CAMP identifies the operational groups of SWMUs, ranks them by their relative risks to human health and the environment, and contains the proposed schedule for the field investigations and report submittals. A revised CAMP was submitted for regulatory approval in March 1995 (ABB-ES, 1995a).

Four SWMU groups are defined in the CAMP. SWMU Groups I through III are presented on Figure 1-2. SWMU Groups I through III were defined by grouping of individual SWMUs within a geographic area that have similar past waste management practices and the potential for similar corrective measures. Group IV SWMUs are not directly associated within a given geographic area, but consist of utility networks and systems that span multiple geographic areas and are not shown on Figure 1-2.

The Group I SWMUs are located in the southwest part of NAVSTA Mayport and include former landfills, active dredge spoil disposal areas, and other individual SWMUs. These SWMUs were incorporated into Group I because of their proximity to each other, common drainage to the Sherman Creek watershed, similarity of past waste disposal activities, and the potential for similar or related corrective measures. Group I SWMUs were ranked as Priority 1 because of a "high perceived risk" for numerous contaminants to cover a large areal extent affecting large volumes of soil and groundwater.

The Group II SWMUs are located along the northern part of NAVSTA Mayport contiguous with the St. Johns River and include current and former hazardous and solid waste storage areas and petroleum waste treatment and disposal facilities. The SWMUs were incorporated into Group II because of their proximity to each other and to the St. Johns River and their potential for similar or related corrective measures. Group II SWMUs were ranked as Priority 2 because of a "moderate perceived risk" for contaminants to cover an area affecting moderate volumes of soil and groundwater, and the potential for adverse impacts on ecological receptors by soil and groundwater. This report presents the results of RFA SV activities at the SWMUs in Group I and II (Table 1-1) identified by the permit as requiring Confirmatory Sampling.

**1.2 PREVIOUS INVESTIGATIONS AT GROUPS I AND II SWMUS.** The following presents a brief summary of the historical evolution of the investigations at NAVSTA Mayport's Groups I and II SWMUs. Group III and IV SWMUs will be addressed in subsequent confirmatory sampling events in accordance with the schedule presented in the NAVSTA Mayport CAMP (ABB-ES, 1995a).

**1.2.1 SWMU Group I Investigations** Phase 1 of the RCRA Corrective Action Program addressed the SWMUs located in Group I and included field investigation activities for both the RFI site characterizations and RFA SVs. The Group I SWMUs that require an RFI are SWMUs 2, 3, 4, 5, 13, and 22 (USEPA, 1988a; A.T. Kearney, 1989) (Figure 1-2) RFI field activities for SWMUs in Group I were performed in early 1992 and a Phase 1 RFI report was submitted to USEPA and Florida Department of Environmental Protection (FDEP) in November 1992 (ABB-ES, 1992a). Data gaps were identified and additional site characterization activities were conducted in 1994. The results of these investigations will be presented in a separate report.



The Group I SWMUs requiring confirmatory sampling are SWMUs 26, 49, 50, and 56. Figure 1-3 presents the locations of the Group I RFA SV SWMUs. SWMU 26 is Landfill C. SWMU 49 consists of the two Flight Line Retention Ponds. SWMU 50 includes the East and West Dredge Spoil Disposal Areas. SWMU 56 is the Building 1552 Accumulation Area.

An RFA SV workplan (confirmatory sampling) for these Group I SWMUs was prepared and submitted for regulatory review in February 1992 (ABB-ES, 1992b). The workplan was approved by regulatory agencies and implemented in late April 1992. A RFA SV report (confirmatory sampling report) was submitted in November 1992 (ABB-ES, 1992c). Several data gaps were identified and subsequently addressed in the RFA SV workplan, Addendum 1, Group I Area, submitted in November 1993 (ABB-ES, 1993a). Field activities for the Group I RFA SV SWMUs were conducted during August and September 1994. This report presents the results from both confirmatory sampling events.

1.2.2 SWMU Group II Investigations Phase 2 of the RCRA Corrective Action Program addressed the SWMUs located in Group II and included field investigative activities for both the RFI site characterizations and RFA SVs.

The Group II SWMUs that require an RFI are SWMUs 6, 7, 8, 9, 10, 11, 12, 15, and 16 (USEPA, 1988a; A.T. Kearney, 1989) (Figure 1-2). Releases of hazardous substances to the environment have been confirmed at these sites. RFI field activities for the SWMUs in Group II were initiated in March 1993 and completed in December 1994. The results of these activities will be presented in a separate report.

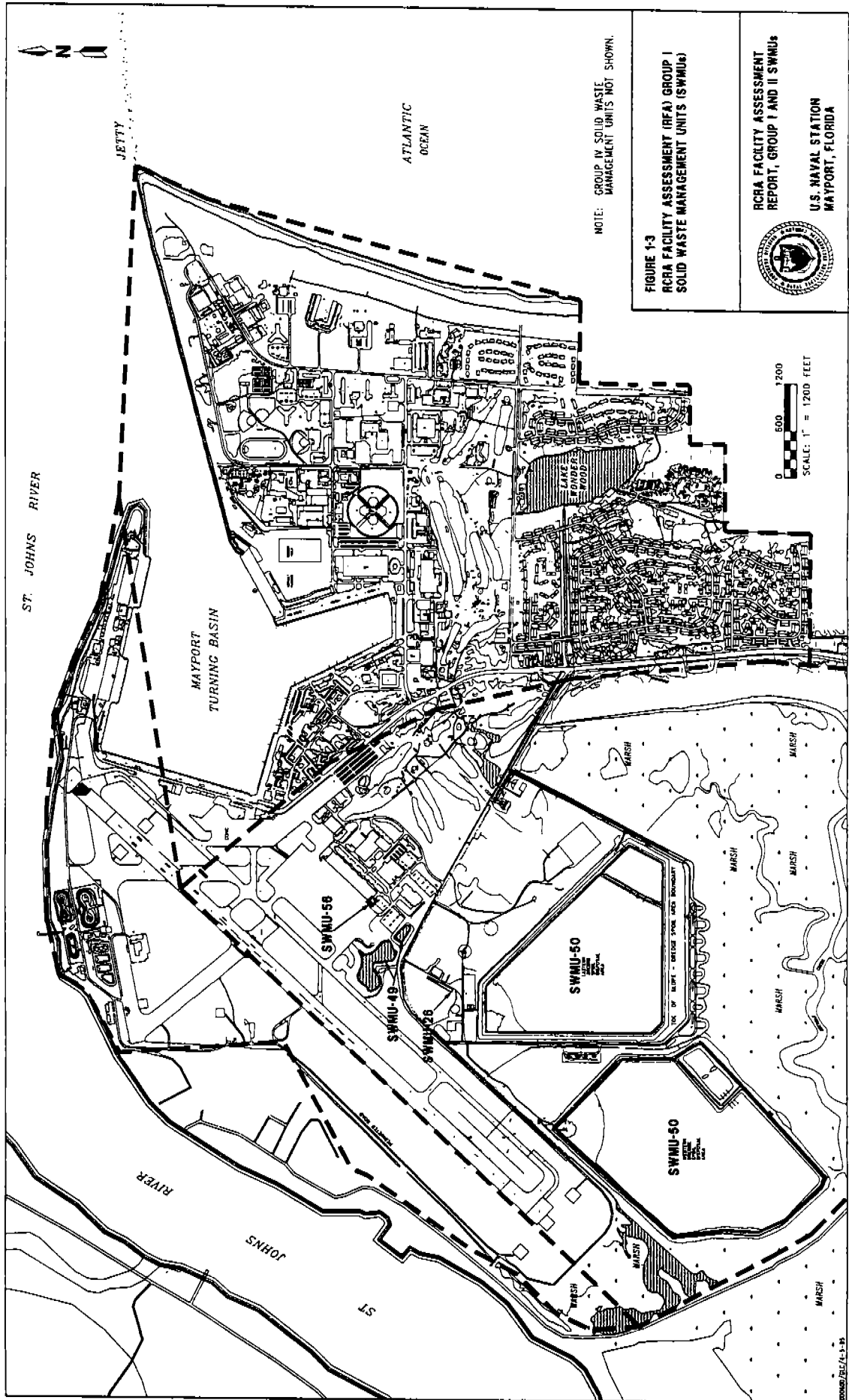
The Group II SWMUs requiring confirmatory sampling are SWMUs 19, 28, and 48. Figure 1-4 presents the locations of the Group II RFA SV SWMUs. SWMU 19 is the Naval Aviation Depot (NADEP) Blasting Area, SWMU 28 is the Defense Reutilization and Marketing Office (DRMO) Yard, and SWMU 48 is the Former Chemistry Laboratory Accumulation Area.

An RFA SV workplan (confirmatory sampling) for these Group II SWMUs was prepared and submitted for regulatory review in November 1993 (ABB-ES, 1993b). Field activities for the Group II RFA SV SWMUs were conducted during August and September 1994. This report presents the results of the confirmatory sampling event.

1.3 RFA SV REPORT FORMAT. This report on confirmatory sampling activities at the Groups I and II RFA SV SWMUs presents one chapter per SWMU. Each chapter includes a site description and site history, field investigative activities, findings, a preliminary risk evaluation, and conclusions and recommendations. Each chapter contains the following elements.

Site Description and Background provides literature information and previous investigative data describing waste management practices, types and quantities of contaminants, and affected media at that SWMU.

RFA and SV Field Investigations describes the data collection activities and deviations, if any, from the workplan that occurred during the Groups I and II RFA SVs.



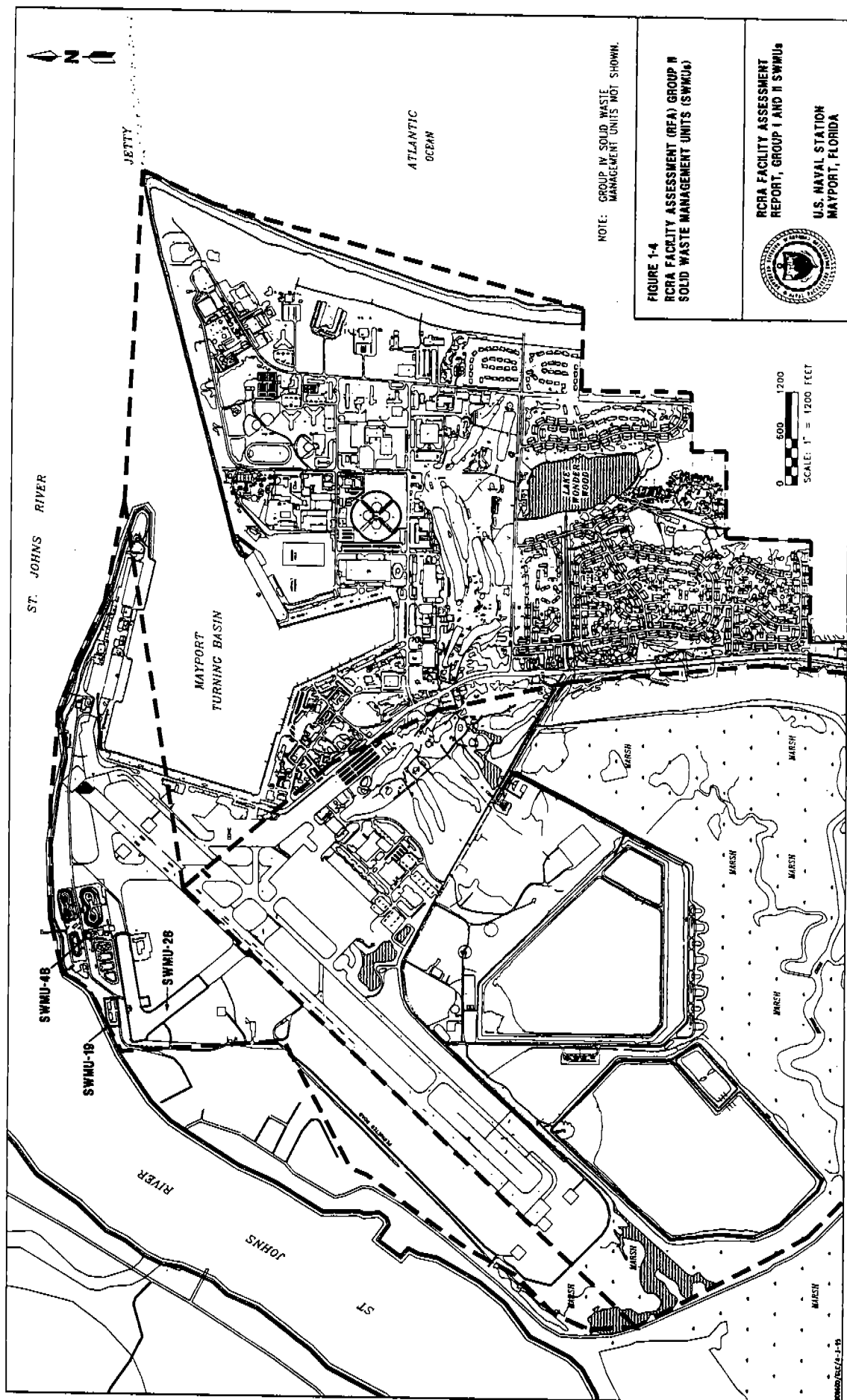
NOTE: GROUP IV SOLID WASTE  
MANAGEMENT UNITS NOT SHOWN.

FIGURE 1-3  
RCRA FACILITY ASSESSMENT (RFA) GROUP I  
SOLID WASTE MANAGEMENT UNITS (SWMUs)



RCRA FACILITY ASSESSMENT  
REPORT, GROUP I AND II SWMUs  
U.S. NAVAL STATION  
MAYPORT, FLORIDA

0 500 1200  
SCALE: 1" = 1200 FEET



Findings presents the results of laboratory analyses of environmental samples (surface and subsurface soil, surface water, sediment, and groundwater) collected during the Groups I and II RFA SV field investigations.

Preliminary Risk Evaluation presents the preliminary assessment of risk for human health and the environment for the SWMU.

Conclusions and Recommendations provides an assessment of the findings relative to the bench mark screening criteria for each media at a site (soil, surface water, sediment, or groundwater).

Data analysis has been focused to support one of the following recommendations for each SWMU: (1) take no further action, (2) investigate nature and extent of contamination by performing an RFI, or (3) implement interim measures.

Except as noted within this report, field activities were conducted in accordance with the approved Phase 1 RFA SV workplan (ABB-ES, 1992b); Addendum 1, Group I SWMUs (ABB-ES, 1993a); and the Phase 2 RFA SV workplan for Group II SWMUs (ABB-ES, 1993b). The general operating guidelines for access, security, and field team organization implemented during RFA SV activities were consistent with RFI requirements as described in Chapter 2.0, Site Management Plan (SMP), of the RFI workplan, Volume II (ABB-ES, 1991). In addition, Section 3.1, General Site Operations, of the RFI workplan, Volume II, provides descriptions of field personnel responsibilities, sample identification, sample management, chain of custody, project documentation, field changes, corrective actions, decontamination, waste management, and other general project standards and procedures. These general requirements were followed during the Groups I and II RFA SV activities.

The following chapters summarize SWMU site descriptions and background, describe the rationale and procedures for field investigations, and present the findings from data gathering activities. The chapters appear in the following order.

Group I SWMUs

- Chapter 2.0, SWMU 26 Landfill C
- Chapter 3.0, SWMU 49 Flight Line Retention Ponds.
- Chapter 4.0, SWMU 50 East and West Dredge Spoil Disposal Areas
- Chapter 5.0, SWMU 56 Building 1552 Accumulation Area

Group II SWMUs

- Chapter 6.0, SWMU 19 Naval Aviation Depot (NADEP) Blasting Area
- Chapter 7.0, SWMU 28 Defense Reutilization and Marketing Office (DRMO) Yard
- Chapter 8.0, SWMU 48 Former Chemistry Laboratory Accumulation Area.

## 2.0 SOLID WASTE MANAGEMENT UNIT (SWMU) 26, LANDFILL C

2.1 SITE DESCRIPTION AND BACKGROUND. Landfill C (SWMU 26) is located north of Landfill B (SWMU 2) in the central part of NAVSTA Mayport (Figure 1-3). SWMU 26 was reported to be used in 1963 for one-time disposal of scrap metal and construction debris transported to NAVSTA Mayport from Green Cove Springs Naval Facility (A.T. Kearney, 1989). Currently, no written documentation has been found to corroborate the disposal of material from the Green Cove Springs Naval Facility. The disposal area consisted of a trench approximately 100 feet long, 20 feet wide, and 8 feet deep into which debris was placed. The landfill is now covered with soil and supports vegetation (Disturbed Messic Flatwood; with slash pines, cedar, cherry laurels, and cabbage palms and a dense undergrowth of woody and herbaceous plants [ABB-ES, 1995b]). No hazardous wastes were disposed at the site according to the IAS (Environmental Science and Engineering, Inc. [ESE], 1986).

SWMU 26 was identified during the IAS as Naval Installation Restoration Program (NIRP) Site 3. The IAS recommended no further investigation because no hazardous wastes were known to have been disposed in SWMU 26 during its brief period of operation in 1963. The SWMU was not identified in the original HSWA permit as an SWMU requiring an RFI (USEPA, 1988a). The RFA (A.T. Kearney, 1989) recommended that documentation be obtained verifying the types of waste disposed at this site. Alternatively, the RFA suggested that soil sampling be conducted to determine if a release to the soil had occurred.

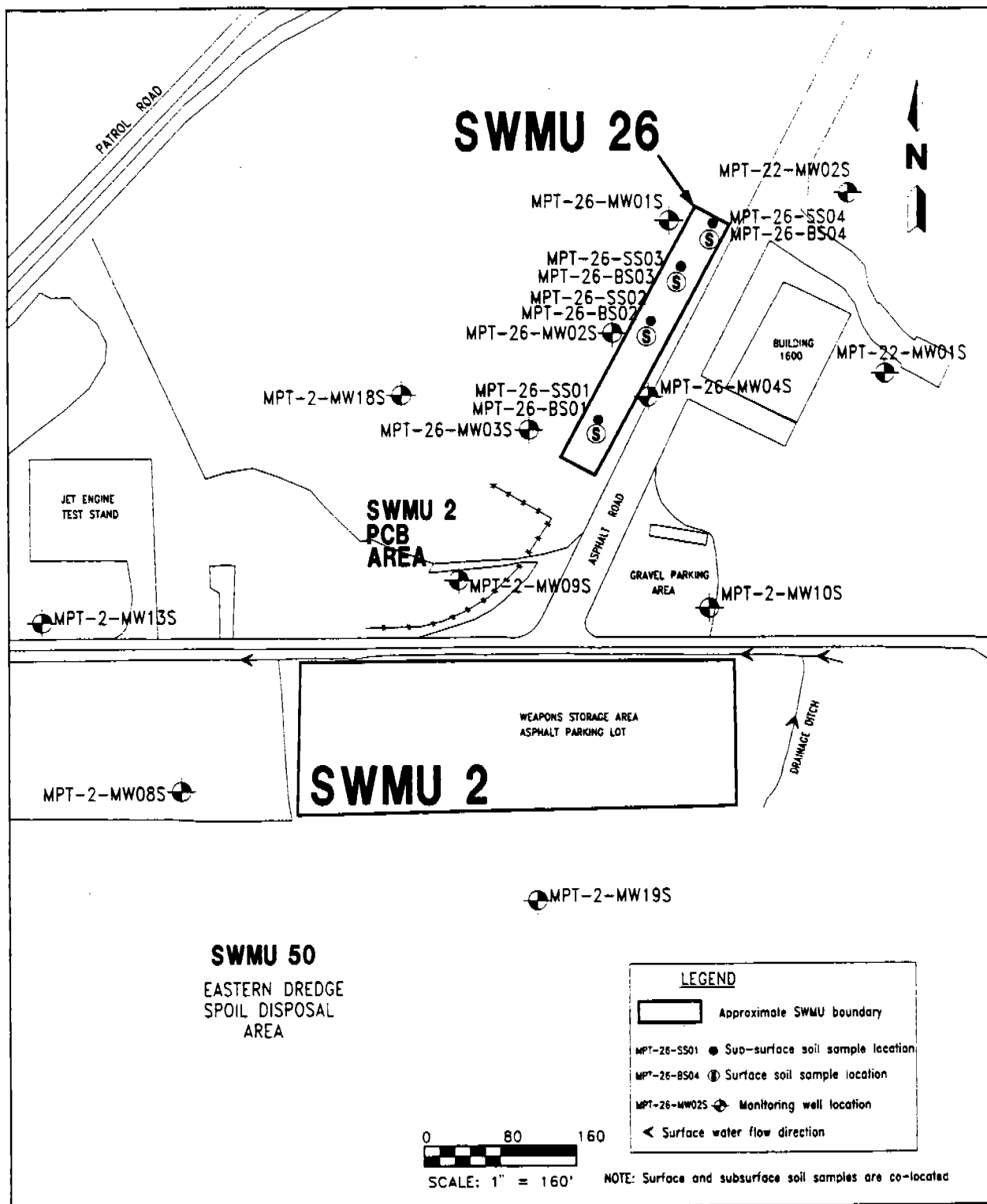
Historical data suggest that only construction debris was disposed at SWMU 26. Prior to the RFA SV field investigation, no additional documentation describing the materials disposed at this site was found. The available historical documentation was reported in the IAS (ESE, 1986) and RFA (A.T. Kearney, 1989).

2.2 RFA SV FIELD INVESTIGATIONS. In the absence of additional supporting documentation, soil sampling was conducted in April 1992 to assess whether hazardous constituents have been or are being released at the site. The sampling event consisted of collecting four surface (land surface to a depth of 6 inches) and four subsurface soil samples (4 to 4.5 feet beneath the land surface) to evaluate soil as a potential exposure pathway. The locations of the surface and subsurface soil samples are shown on Figure 2-1.

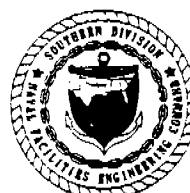
The detection of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) in soil samples collected during the April 1992 investigation at SWMU 26 suggest that materials other than "construction debris" may have been deposited in the trench that comprises Landfill C. During the sampling event the water table at the SWMU 26 area was found to be approximately 4.5 feet below land surface (bls). Because the suspected depth of the trench is 8 feet bls, it is apparent that the "debris" was deposited below the water table and a release to groundwater is possible.

Based on the soil sampling results, four monitoring wells were installed at SWMU 26 and groundwater samples were collected in July 1994 to assess whether hazardous constituents have been released to groundwater at or near the site and to evaluate groundwater as a potential exposure pathway. Monitoring well locations are presented on Figure 2-1.





**FIGURE 2-1**  
**SAMPLING LOCATIONS**  
**AT SWMU 26, LANDFILL C**



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**

H:\9500\000300\GLC-NAB\7-17-95

Because many field activities are similar for all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 26 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Monitoring well installation, soil and groundwater sampling procedures, and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV Standard Operating Procedures (USEPA, 1991a).

Soil Sample Collection Procedure. Surface and subsurface soil sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Soil Sampling, of the GIR (ABB-ES, 1995b).

Monitoring Well Installation Procedure. Drilling and well installation was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Monitoring Well and Piezometer Installation, of the GIR (ABB-ES, 1995b).

Groundwater Sample Collection Procedure. Groundwater sampling was accomplished as described in Subsection 2.1.4, Groundwater Sampling, of the GIR (ABB-ES, 1995b). The groundwater sample collection method used was low flow sampling.

Laboratory Analysis. Soil and groundwater samples were analyzed for target analytes selected from the Groundwater Monitoring List contained in Appendix IX, 40 CFR, Part 264, and USEPA Contract Laboratory Program target compound list and target analyte list, including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide. The analysis was conducted using methods contained in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA SW846 (USEPA, 1986). A list of the target analytes is provided in Appendix A. Analytical results from the 1992 sampling event were presented in the RFA SV Report, Phase 1 (ABB-ES, 1992c), and results of the 1994 sampling event are provided in Appendix B.

2.3 FINDINGS. The following presents a brief description of the results of the RFA SV sampling activities at SWMU 26. The findings include site geologic and hydrogeologic conditions and results of the analyses of surface and subsurface soil samples and groundwater samples.

Site Geology. In June 1994, four soil borings were drilled at SWMU 26 for the installation of shallow monitoring wells (monitoring wells with screens placed across the water table) (Figure 2-1). Boring logs for these four monitoring wells and the other monitoring wells shown in Table 2-1 are presented in the NAVSTA Mayport GIR, Appendix A, Boring Logs (ABB-ES, 1995b).

Subsurface soils encountered during installation of the four monitoring wells at SWMU 26 had considerable variation over the short lateral distance between each location. The following is a description of the subsurface soils encountered at each of the four locations.

- Boring MPT-26-MW01S (located near the northern corner of SWMU 26) encountered a silty sand to a depth of approximately 5.5 feet bls, which was overlying a clayey sand to the explored depth of 12.5 feet bls.

**Table 2-1**  
**Solid Waste Management Unit (SWMU) 26 Water Level Data, August 30, 1994**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Well or Piezometer	Elevation (NGVD)	Water Level		
		Time (EST)	Depth (TOC)	Elevation (msl)
MPT-2-MW08S	10.55	06:39 pm	3.51	7.04
MPT-2-MW09S	10.50	12:00 pm <sup>1</sup>	3.51	7.04
MPT-2-MW10S	10.02	12:45 pm	3.20	6.82
MPT-2-MW18S	6.37	12:32 pm	3.95	2.42
MPT-22-MW01S	7.15	12:10 pm	2.68	4.47
MPT-22-MW02S	6.70	12:05 pm	2.77	3.93
MPT-26-MW01S	5.58	12:20 pm	1.91	3.94
MPT-26-MW02S	6.68	12:25 pm	2.50	4.38
MPT-26-MW03S	7.05	12:28 pm	1.48	5.57
MPT-26-MW04S	7.21	12:48 pm	2.58	4.63

<sup>1</sup> Water level recorded by a programmable electronic monitor.

Notes: NGVD = National Geodetic Vertical Datum of 1929.  
EST = Eastern Standard Time.  
TOC = top of casing as datum.  
msl = mean sea level.

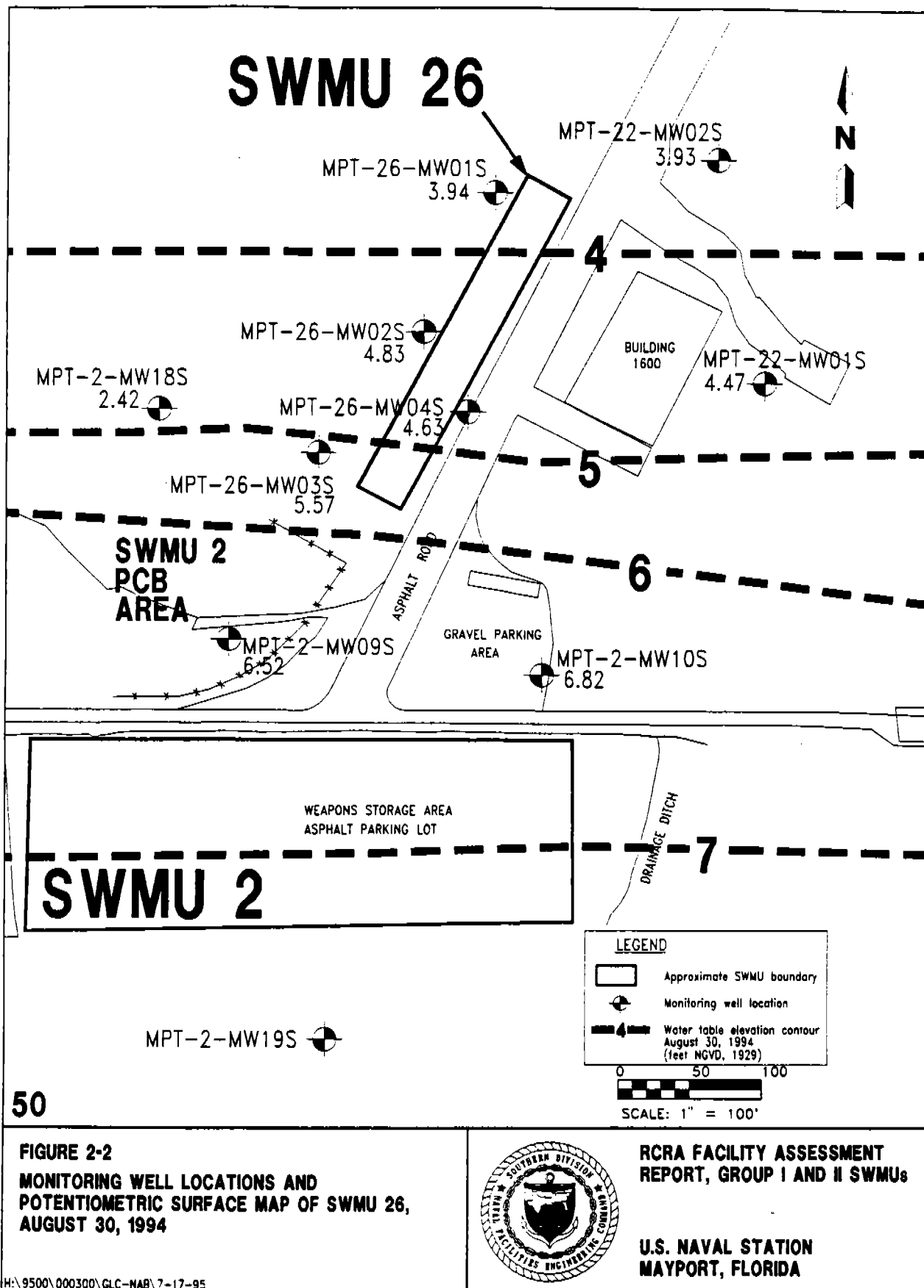
- Boring MPT-26-MW02S (located on the west central side of SWMU 26) encountered a silty sand from the land surface to the explored depth of 12.5 feet bls.
- Boring MPT-26-MW03S (southwest corner of SWMU 26) encountered four distinct lithologic materials, a silty sand from the land surface to a depth of approximately 3.5 feet, underlain by silty sands and gravel to approximately 10 feet bls, which occurred over a silty clay to approximately 11.5 feet bls, and was terminated in a clayey sand at 12.5 feet.
- Boring MPT-26-MW04S (southeast side of SWMU 26) encountered a silty sand from the land surface to approximately 8 feet bls, which overlies a clay layer that occurred to a depth of approximately 10.7 feet bls, and was terminated in a silty sand at a depth of 12.5 feet bls.

Geologic cross sections provided in the NAVSTA Mayport GIR (see Figures 3-3 and 3-4, ABB-ES, 1995b) depict subsurface geologic conditions in the vicinity of SWMU 26.

Site Hydrogeology. The groundwater level at each SWMU 26 monitoring well and for other RFI and RFA SV sites at NAVSTA Mayport was measured during a 7-hour period on August 30, 1994. The depth to the groundwater at each location was measured relative to a notch or mark on the north side of each monitoring well surveyed to the National Geodetic Vertical Datum (NGVD) of 1929 (commonly referred to as mean sea level [msl]). The depths to groundwater measured at each of the SWMU 26 monitoring wells are provided in Table 2-1 along with depths to groundwater measured at other monitoring wells in the vicinity of the site. Also shown on the table are values for the water level measurements relative to the NGVD datum. The elevation data were used to prepare a map of the potentiometric surface (lines that represent altitudes of equal height above the reference datum) of the water table zone of the surficial aquifer (Figure 2-2). The potentiometric surface map of the water table is used to infer that groundwater flow is from higher to lower altitudes in a direction perpendicular to the equipotential lines. Based on the equipotential lines shown on Figure 2-2, the groundwater flow direction at SWMU 26 is generally toward the north.

The hydraulic position of the monitoring wells relative to SWMU 26 also is based on the equipotential lines shown on Figure 2-2. Monitoring wells MPT-2-MW09S and MPT-2-MW10S are located hydraulically upgradient from SWMU 26 (Table 2-2). Monitoring wells MPT-26-MW03S and MPT-26-MW04S are along a similar hydraulic equipotential line as the southern part of SWMU 26. Monitoring wells MPT-26-MW01S and MPT-26-MW02S are located hydraulically downgradient of SWMU 26.

An approximation of the horizontal linear velocity of groundwater flow in the water table zone of the surficial aquifer in the vicinity of SWMU 26 is based on the potentiometric surface (hydraulic gradient) of the water table, estimates of radial hydraulic conductivities at monitoring well locations, and an estimate of the porosity (ratio of the volume of voids to total volume of the soil) of the saturated subsurface soil. The horizontal linear velocity was calculated from a modified form of Darcy's equation and represents the ratio of linear travel distance to travel time between two points (Freeze and Cherry, 1979). The horizontal linear velocity is expressed as  $V_D/N_e$ , where  $V_D$  is the Darcy velocity ( $V_D = KI$ ,  $K$  = radial hydraulic conductivity, and  $I$  = hydraulic gradient) and  $N_e$  is the effective porosity of the saturated geologic stratum. An effective



porosity of 0.35 is used in the calculations. (See Section 3.2.3, Physical Characteristics of Soil, in the NAVSTA Mayport GIR [ABB-ES, 1995b]).

**Table 2-2**  
**Summary of Monitoring Well Installations Near SWMU 26**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

SWMU Number	Monitoring Well No.	Hydraulic Position to SWMU 26	Diameter (inches)	Total Depth (feet)	Screened Interval (feet bls)
2	MPT-2-MW08S	S	2	10	3 to 10
2	MPT-2-MW09S	U	2	10	3 to 10
2	MPT-2-MW10S	U	2	15	5 to 10
2	MPT-2-MW18S	S	2	12.5	2 to 12
22	MPT-22-MW01S	S	2	12	2 to 12
22	MPT-22-MW02S	S	2	13.5	3 to 13
26	MPT-26-MW01S	D	2	12.5	2 to 12
26	MPT-26-MW02S	D	2	12.5	2 to 12
26	MPT-26-MW03S	S	2	12.5	2 to 12
26	MPT-26-MW04S	S	2	12.5	2 to 12

Notes: SWMU = solid waste management unit.  
bls = below land surface.  
S = hydraulically sidegradient.  
U = hydraulically upgradient.  
D = hydraulically downgradient.

In-situ radial hydraulic conductivity values for monitoring wells in the vicinity of SWMU 26 are presented in Table 2-3. The range of in-situ radial hydraulic conductivity values in the vicinity of SWMU 26 is approximately 4.6 feet per day (MPT-2-MW18S) to 5.7 feet per day (MPT-2-MW05S). The hydraulic gradient appears to be relatively uniform over SWMU 26 (0.003 foot per foot [ft/ft] on August 30, 1994) and an approximation of the horizontal linear velocity of the groundwater ranges from approximately 0.05 to 0.09 foot per day.

Based on the values for horizontal linear velocity and assuming no dilution, dispersion or retardation, a contaminant in the water table zone of the surficial aquifer may travel at rates of 18 to 33 feet per year (Table 2-3).

Surface and Subsurface Soil Analytical Results. Tables 2-4 and 2-5 summarize the validated analytical results for organic and inorganic target analytes, respectively, detected in the surface and subsurface soil samples collected at SWMU 26. Complete analytical results were presented in the RFA SV Report, Phase 1 (ABB-ES, 1992c). A summary of frequencies of detection, range of detection limits, range of detected concentrations, and arithmetic mean and bench mark comparison values are provided in Tables 2-6 and 2-7 for surface and subsurface soil samples, respectively. The target analytes detected in the environmental samples were compared to background screening values computed from station-wide surface and subsurface soil samples (ABB-ES, 1995b), and benchmark values from

USEPA Region III risk based concentrations (RBC) (USEPA, 1995), the USEPA Superfund soil screening levels (SSLs) (USEPA, 1994), and the State of Florida cleanup goals (FDEP, April 1995). Surface and subsurface soil concentrations were compared to an aggregate residential exposure (child and adult) for USEPA Region III RBCs and USEPA SSLs. Values for Florida cleanup goals consist of aggregate residential exposure (child and adult) for surface soil, whereas subsurface soil concentrations were compared to an industrial worker exposure.

**Table 2-3**  
**Average Groundwater Velocities at SWMU 26**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Location	Estimated Effective Porosity	Hydraulic Conductivity (ft/day)	Estimated Gradient <sup>1</sup> (ft/ft)	Estimated Linear Velocity (ft/day)	Estimated Linear Velocity (ft/year)
MPT-2-MW05S	0.35	5.7 <sup>2</sup>	0.003	0.05	18
MPT-2-MW10S	0.35	5.5 <sup>3</sup>	0.003	0.05	18
MPT-2-MW09S	0.35	5.5 <sup>3</sup>	0.003	0.05	18
MPT-2-MW18S	0.35	4.6 <sup>4</sup>	0.007	0.09	33

<sup>1</sup> Based on synoptic water table elevations.

<sup>2</sup> Measured during the Expanded Site Inspection, October 1987 (E.C. Jordan, 1988).

<sup>3</sup> In-situ conductivity measurement at MPT-2-P-5, February 1992.

<sup>4</sup> In-situ conductivity measurement at MPT-2-MW18S, December 12, 1994.

Notes: ft/day = feet per day.

ft/ft = feet per foot.

ft/year = feet per year.

Each of the bench mark criteria provided in Tables 2-6 and 2-7 are human health based and represent the lower of either a noncarcinogenic Hazard Index (HI) where values of less than 1 represent a concentration at which noncarcinogenic effects are not likely, or a lifetime excess cancer risk of  $10^{-6}$ , which represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure. The concentrations listed for the USEPA Region III RBCs correspond to an HI of 0.1, whereas the USEPA Superfund SSLs and the State of Florida cleanup goals are based on an HI of 1. The Federal National Oil and Hazardous Substance Pollution Contingency Plan (NCP), Final Rule, (40 CFR, Part 300) states that for carcinogens a lifetime excess cancer risk in the range of  $10^{-4}$  (a chance of 1 in 10,000 for an adverse carcinogenic effect for a continuous lifetime exposure) to  $10^{-6}$  represents concentrations that are considered by USEPA to be protective of human health.

Four surface and subsurface soil sample pairs were collected on April 21, 1992, along the center line of SWMU 26 on 75-foot centers (Figure 2-1). Surface soil samples were collected from 0 to 0.5 foot bls. The subsurface soil samples were collected above the water table at a sampling interval of 4 to 4.5 foot bls.

Surface soil at SWMU 26 consists of light tan, fine- to medium-grained sand with numerous shell fragments. Subsurface soil collected at sampling locations MPT-26-SS/BS02 and MPT-26-SS/BS03 was similar to the surface soil. At sample

**Table 2-4**  
**Organic Analytes Detected in Soil Samples at SWMU 26**

**Groups I and II RFA SV Report**  
**U.S. Naval Station**  
**Mayport, Florida**

Analytical Batch No.:		21510		21510		21510		21510		21510		21510	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-26-SS01		MPT-26-SS01		MPT-26-BS01		MPT-26-BS01		MPT-26-BS01		MPT-26-SS02	
Sample No.:		MPT26SS01		MPT26SS01Dup		MPT26BS11		MPT26BS11Dup		MPT26BS11		MPT26SS02	
Date Sampled:		04/21/92		04/21/92		04/21/92		04/21/92		04/21/92		04/21/92	
Sample Depth (ft bls):		0 to 0.5		0 to 0.5		4 to 4.5		4 to 4.5		4 to 4.5		0 to 0.5	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
	<b>Volatile Organics</b>												
67-66-3	Chloroform	µg/kg	-	-	-	-	-	-	5	J	-	-	
78-93-3	2-Butanone	µg/kg	-	-	6	J	9	J	15	-	-	-	
108-88-3	Toluene	µg/kg	-	-	-	-	-	-	-	-	-	-	
1330-20-7	Xylene	µg/kg	3	J	2	J	-	-	-	-	-	-	
75-05-8	Acetonitrile	µg/kg	-	-	-	-	-	-	-	-	-	-	
	<b>Semivolatile Organics</b>												
84-74-2	Di-n-butylphthalate	µg/kg	-	-	50	J	-	-	51	J	54	J	J
117-81-7	bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	42	J	38	J	J

See notes at end of table.



**Table 2-4 (Continued)**  
**Organic Analytes Detected in Soil Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		21510		21510		21510		21510		21510		21510	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-26-BS22		MPT-26-SS3		MPT-26-BS3		MPT-26-SS4		MPT-26-BS4		MPT-26-SS4	
Sample No.:		MPT26BS12		MPT26SS03		MPT26BS13		MPT26SS04		MPT26BS14		MPT26SS04	
Date Sampled:		04/21/92		04/21/92		04/21/92		04/21/92		04/21/92		04/21/92	
Sample Depth (ft bis):		4 to 4.5		0 to 1.5		4 to 4.5		0 to 1.5		4 to 4.5		0 to 1.5	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
<b>Volatile Organics</b>													
67-66-3	Chloroform	µg/kg	--		--		--		--		--		J
78-93-3	2-Butanone	µg/kg	7	J	6	J	--		--		11		
108-88-3	Toluene	µg/kg	--		--		--		--		--		
1330-20-7	Xylene	µg/kg	--		1	J	2	J	5	J	2	J	J
75-05-8	Acetonitrile	µg/kg	--		--		22	J	24	J	24	J	J
<b>Semivolatile Organics</b>													
84-74-2	Di-n-butylphthalate	µg/kg	43	J	69	J	54	J	64	J	63	J	J
117-81-7	bis(2-Ethylhexyl)phthalate	µg/kg	--		94	J	--		38	J	--		

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Suffix Dup = duplicate of the environmental sample.

ft bis = sample collection depth in feet below land surface.

Conc. = concentration.

Qual. = qualifier.

µg/kg = micrograms per kilogram.

"J" = estimated value.

-- = analyte not detected.

**Table 2-5**  
**Inorganic Analytes Detected in Soil Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		21510 Soil		21510 Soil		21510 Soil		21510 Soil		21510 Soil	
Sample Matrix:		MPT-26-SS01		MPT-26-SS01		MPT-26-BS01		MPT-26-BS01		MPT-26-BS01	
Sample Location:		MPT26SS01		MPT26SS01Dup		MPT26BS11		MPT26BS11Dup		MPT26SS02	
Sample No.:		04/21/92		04/21/92		04/21/92		02/21/92		04/21/92	
Date Sampled:		0 to 1.5		0 to 1.5		4 to 4.5		4 to 4.5		4 to 4.5	
Sample Depth (ft bis):		0 to 1.5		0 to 1.5		4 to 4.5		4 to 4.5		4 to 4.5	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
7440-38-2	Arsenic	mg/kg	0.68	J	0.57	J	0.74	J	0.57	J	J
7440-39-3	Barium	mg/kg	4.5	J	6.3	J	4.7	J	4.1	J	J
7440-41-7	Beryllium	mg/kg	0.11	J	0.11	J	0.11	J	-	-	J
7440-47-3	Chromium	mg/kg	3.9		4.1		2.5	J	1.8	J	
7440-48-4	Cobalt	mg/kg	-		-		-		-		
7440-50-8	Copper	mg/kg	8.8		5.0	J	4.5	J	1.3	J	
7440-92-1	Lead	mg/kg	-		-		-		-		
7440-02-0	Nickel	mg/kg	6.8	J	4.8	J	2.3	J	-		J
7440-62-2	Vanadium	mg/kg	3	J	3.7	J	1.7	J	1.0	J	J
7440-66-6	Zinc	mg/kg	29.7	J	14.3	J	15.4	J	3.8	J	J
5955-70-0	Cyanide	mg/kg	1.3		1.7		0.25	J	0.21	J	

See notes at end of table.

**Table 2-5 (Continued)**  
**Inorganic Analytes Detected in Soil Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Mayport, Florida																	
Analytical Batch No.:		21510		21510		21510		21510		21510		21510		21510		21510	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-26-BS02		MPT-26-SS03		MPT-26-BS03		MPT-26-SS04		MPT-26-BS04		MPT-26-SS04		MPT-26-BS04		MPT-26-SS04	
Sample No.:		MPT26BS12		MPT26SS03		MPT26BS13		MPT26SS04		MPT26BS14		MPT26SS04		MPT26BS14		MPT26SS04	
Date Sampled:		04/21/92		04/21/92		02/21/92		04/21/92		04/21/92		04/21/92		04/21/92		04/21/92	
Sample Depth (ft bls)		4 to 4.5		0 to 1.5		4 to 4.5		0 to 1.5		4 to 4.5		0 to 1.5		4 to 4.5		4 to 4.5	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	
7440-38-2	Arsenic	mg/kg	0.67	J	0.86	J	1.1	J	1.6	J	2	J	1.6	J	2	J	
7440-39-3	Barium	mg/kg	2.2	J	2.7	J	2.9	J	8.2	J	9	J	8.2	J	9	J	
7440-41-7	Beryllium	mg/kg	0.07	J	0.13	J	0.11	J	0.33	J	0.23	J	0.33	J	0.23	J	
7440-47-3	Chromium	mg/kg	2.6		3.4		2.8		8.2		7.4		8.2		7.4		
7440-48-4	Cobalt	mg/kg	-		-		-		1.4		1.4		1.4		1.4		
7440-50-8	Copper	mg/kg	1.3	J	4.6	J	3.9	J	7.0		3.4	J	7.0		3.4	J	
7440-92-1	Lead	mg/kg	-		-		-		4.6		3.5	J	4.6		3.5	J	
7440-02-0	Nickel	mg/kg	-		3.1	J	3.3	J	4.4		3.7	J	4.4		3.7	J	
7440-62-2	Vanadium	mg/kg	2.5	J	2.4	J	2.6	J	8.6		6.3	J	8.6		6.3	J	
7440-66-6	Zinc	mg/kg	9.6	J	15.3	J	10.2	J	17.5		12.5	J	17.5		12.5	J	
5955-70-0	Cyanide	mg/kg	-		-		2.1		1.6		3		1.6		3		

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Suffix Dup = duplicate of the environmental sample.

ft bls = sample collection depth in feet below land surface.

Conc. = concentration.

Qual. = qualifier.

mg/kg = milligrams per kilogram.

"J" = estimated value.

- = analyte not detected.

**Table 2-6**  
**Chemicals of Potential Concern (CPCs) in Surface Soil at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Acetonitrile	1/4	110 to 120	24	24	ND	47,000	NA	NA	No	S
2-Butanone	2/4	12 to 14	6	6	ND	4,700,00	NA	2,500,000	No	S, P, G
Toluene	1/4	5 to 6	1	1	ND	1,600,000	16,000,000	270,000	No	S, P, G
Xylene	3/4	6 to 6	1 to 5	2.8	ND	16,000,000	160,000,000	6,400,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Di-n-butylphthalate	4/4	NR	54 to 220	102	ND	780,000	7,800,000	7,500,000	No	S, P, G
bis(2-Ethylhexyl) phthalate	3/4	390 to 780	38 to 94	56.7	ND	46,000	46,000	45,000	No	S, P, G
<b>Pesticides/PCBs (µg/kg)</b>										
No analytes detected										
<b>Inorganics (mg/kg)</b>										
Arsenic	4/4	NR	0.63 to 1.6	0.96	ND	90.37	0.4	0.7	Yes	S, P, G
Barium	4/4	NR	2.7 to 8.2	4.9	2.8	550	5,500	5,000	No	S, P, G
Beryllium	4/4	NR	0.11 to 0.33	0.17	0.16	0.15	0.1	0.1	Yes	S, P, G
Chromium	4/4	NR	2.7 to 8.2	4.6	1.3	10.39	390	150	No	S, P, G
Cobalt	1/4	0.75 to 0.84	1.4	1.4	ND	470	NA	4,700	No	S, G
Copper	4/4	NR	4.6 to 7.4	6.5	1.1	290	NA	2,900	No	S, P, G
Lead	1/4	2.5 to 2.8	4.6	4.6	ND	11,400	11,400	500	No	S, P, G
Nickel	4/4	NR	2.4 to 5.8	3.9	ND	160	1,600	1,500	No	S, P, G
Vanadium	4/4	NR	2.4 to 8.6	5	2	55	550	480	No	S, P, G
Zinc	4/4	NR	15.3 to 22	18.6	1.3	2,300	23,000	23,300	No	S, P, G
Cyanide	2/4	0.19 to 0.21	1.5 to 1.6	1.6	ND	160	1,600	1,600	No	S, P, G

See notes on next page.

**Table 2-6 (Continued)**  
**Chemicals of Potential Concern (CPCs) in Surface Soil at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Notes from previous pages.

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified as "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III risk based concentration tables dated February 9, 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- <sup>6</sup> Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the aggregate resident based on a cancer risk of  $10^{-6}$  and the child resident based on a hazard quotient of 1.
- <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:  
 S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.  
 G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.  
 B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.  
 F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.  
 C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]).  
 M = the analyte was detected at less than 5 percent and is a CPC in more than one media.  
 P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- <sup>9</sup> The value is based on arsenic as a carcinogen.
- <sup>10</sup> The value is based on chromium hexavalent form.
- <sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and RCRA sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 26SS01, 26SS02, 26SS03, and 26SS04.  
 Background sample locations include: MPT-B-SS1, MPT-B-SS2, MPT-B-SS3, MPT-B-SS4, MPT-B-SS5, and MPT-B-SS6.  
 Duplicate background sample location includes: MPT-B-SS1DUP.

$\mu\text{g}/\text{kg}$  = micrograms per kilograms.  
 ND = not detected in any background samples.  
 NA = not available.

NR = not reported; analyte detected in each sample;  
 reporting limits are same as range of detected concentrations.  
 PCBs = polychlorinated biphenyls.  
 mg/kg = milligrams per kilograms.

**Table 2-7**  
**Chemicals of Potential Concern (CPCs) in Subsurface Soil Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Acetonitrile	2/4	120 to 130	22 to 24	23	ND	47,000	NA	NA	No	S
2-Butanone	3/4	11	7 to 12	10	ND	4,700,000	NA	17,000,000	No	S, P, G
Chloroform	1/4	5 to 6	5	5	ND	10,000	110,000	400	No	S, P, G
Xylene	2/4	6 to 6	2	2	ND	16,000,000	160,000,000	44,000,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Di-n-butylphthalate	4/4	NR	43 to 108	67	ND	780,000	7,800,000	150,000,000	No	S, P, G
bis(2-Ethylhexyl) phthalate	1/4	380 to 410	104	104	ND	46,000	46,000	500	No	S, P, G
<b>Pesticides/PCBs (µg/kg)</b>										
None										
<b>Inorganics (mg/kg)</b>										
Arsenic	4/4	NR	0.66 - 2	1.1	0.9	<sup>9</sup> 0.37	0.4	3	Yes	
Barium	4/4	NR	2.2 - 9	4.6	7.2	550	5,500	74,000	No	S, P, G
Beryllium	4/4	NR	0.07 - 0.23	0.12	0.14	0.15	0.1	0.2	Yes	
Chromium	4/4	NR	2.2 - 7.4	3.8	3.4	<sup>10</sup> 39	390	<sup>10</sup> 220	No	S, P, G
Cobalt	1/4	0.75 to 0.89	1.4	1.4	1.04	470	NA	110,000	No	S, G
Copper	4/4	NR	1.3 to 3.9	2.9	3.6	290	NA	72,000	No	S, G
Lead	1/4	1 to 2.2	3.5 to 3.5	3.5	2.8	<sup>11</sup> 400	<sup>11</sup> 400	1,000	No	S, P, G
Nickel	3/4	0.94	1.4 to 3.7	2.8	ND	160	1,600	11,000	No	S, P, G
Vanadium	4/4	NR	1.4 to 6.3	3.2	3.2	55	550	4,800	No	S, P, G
Zinc	4/4	NR	9.6 to 12.5	10.5	4.8	2,300	23,000	552,000	No	S, P, G
Cyanide	2/4	0.22	0.23 to 3	1.8	0.66	160	1600	40,000	No	S, P, G

See notes on next page.

**Table 2-7 (Continued)**  
**Chemicals of Potential Concern (CPCs) in Subsurface Soil Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
---------	-------------------------------------	---------------------------	---	--	---	---	---	--	-----------------------	---------------------

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected, including value qualified as "U"; it does not include those samples where the analyte was not detected ("U," or "UJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentrations. Organic values are included for comparison purposes only.
- <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 9, 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- <sup>6</sup> Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April, 5, 1995. The values are for the Industrial Worker based on a cancer risk of  $10^{-6}$  and the general worker based on a hazard quotient of 1.
- <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:
- S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- <sup>9</sup> The value is based on arsenic as a carcinogen.
- <sup>10</sup> The value is based on chromium hexavalent form.
- <sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 26BS11; 26BS12; 26BS13; 26BS14

Duplicate sample locations include: 26BS11D

Background sample locations include: MPT-B-B1; MPT-B-B4; MPT-B-B5; 1833X

Duplicate background sample locations include: MPT-B-B1DUP

µg/kg = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

mg/kg = milligrams per kilograms.  
PCBs = polychlorinated biphenyls.

locations MPT-26-SS/BS01 and MPT-26-SS/BS04, the tan sand graded with depth into a gray to dark gray clayey sand at approximately 1.5 feet bls.

Four VOCs (2-butanone, toluene, xylene, and acetonitrile) were detected in the surface soil samples (Table 2-4). Two SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate) were detected in the surface soil samples. These same analytes and the VOC chloroform were detected in the subsurface soil samples. Pesticides and PCBs were not detected in the surface or subsurface soil samples.

Inorganic target analytes detected in the surface and subsurface soil samples consisted of arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, zinc, and cyanide (Table 2-5).

Groundwater Analytical Results. A summary of groundwater quality parameters is provided in Table 2-8 and Tables 2-9 and 2-10 summarize the validated analytical results for semivolatile and inorganic target analytes, respectively, detected in groundwater samples collected at SWMU 26. Complete analytical results are presented in Appendix B. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 2-11. The target analytes detected in the environmental samples were compared to background screening values computed from station-wide background groundwater samples (ABB-ES, 1995b), and bench mark values consisting of USEPA Region III RBCs (USEPA, 1995), and Florida groundwater guidance concentrations (FDEP, 1994). The Florida groundwater guidance concentrations consist of promulgated and unpromulgated values. The State of Florida promulgated values are equal or more stringent than Federal primary and secondary drinking water regulations (57FR31777, July 17, 1992). Promulgated values that are exceeded will be identified in the text.

Each of the bench mark criteria provided in Table 2-11 are human health based and represent the lower of either a noncarcinogenic hazard index (HI) of 1 or a lifetime excess cancer risk of  $10^{-6}$ . Bench mark values for a noncarcinogenic HI of 1 or less represent a concentration where noncarcinogenic effects are not likely. A bench mark value for a lifetime excess cancer risk of  $10^{-6}$  represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure.

The water quality parameters for the SWMU 26 groundwater monitoring wells were compared to the State of Florida secondary water quality criteria (Florida Administrative Code, Chapter 62-550.320) (Table 2-8). Values determined for color and total dissolved solids exceeded the State of Florida secondary water quality criteria for three of the groundwater samples. The State of Florida secondary water quality criteria for pH was exceeded in the groundwater sample collected from monitoring well MPT-26-MW04S.

Values determined for hardness as  $\text{CaCO}_3$  suggest that the groundwater would be considered very hard (greater than 180 mg/l; Durfor and Becker, 1964). The values determined for total dissolved solids suggest that the groundwater would be considered brackish to slightly saline. The range for classifying water as brackish is 1,000 to 10,000 mg/l and the range for classifying water as saline is 10,000 to 100,000 for saline (Freeze and Cherry, 1979).

VOCs, pesticides, PCBs, or cyanide (total) were not detected in the groundwater samples collected from the SWMU 26 monitoring wells. Target analytes detected



**Table 2-8**  
**Water Quality Parameters for Groundwater at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		M7505	M7515	M7492	
Sample Matrix:		Groundwater	Groundwater	Groundwater	
Sample Location:		MPT-26-MW01S	MPT-26-MW03	MPT-26-MW04	
Sample No.:		26MW0001S	26MW003S	26MW004S	Secondary Water Quality Criteria <sup>1</sup>
Date Sampled:		08/02/94	08/02/94	08/02/94	
Common Name	Units	Conc.	Conc.	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	950	780	866	-
Ammonia nitrogen	mg/l	6.2	13.7	6.9	-
Chloride	mg/l	3,470	6,740	5,660	250,000
Color	APHA	70	50	50	15
Hardness as CaCO <sub>3</sub>	mg/l	1,530	2,030	1,890	-
Nitrate + nitrite nitrogen	mg/l	0.13	< 0.1	< 1	10,000
Oil and grease	mg/l	< 5	5.8	< 5	-
Phosphorous P, total	mg/l	2.24	1.73	0.96	-
Sulfate	mg/l	181	< 1	87.2	250,000
Sulfide	mg/l	3.5	1	18.5	-
Total dissolved solids	mg/l	6,310	10,300	9,810	500
Total Kjeldahl nitrogen	mg/l	9.7	16.3	9.7	-
Total organic carbon	mg/l	20.6	28.2	20	-
pH	SU	6.9	7	10.4	6.5 to 8.5

<sup>1</sup> Secondary water quality criteria, Chapter 62-550.320, Florida Administrative Code.

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
 Conc. = concentration.  
 CaCO<sub>3</sub> = calcium carbonate.  
 mg/l = milligrams per liter.  
 - = analyte not detected.  
 APHA = American Public Health Association.  
 SU = standard units.

**Table 2-9**  
**Semivolatile Organic Analytes Detected in Groundwater Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Wayport, Florida											
Analytical Batch No.:		M7503		M7503		M7503		M7513		M7490	
Sample Matrix:		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater	
Sample Location:		MPT-26-MW01S		MPT-26-MW01S		MPT-26-MW02S		MPT-26-MW03S		MPT-26-MW04S	
Sample No.:		26MW001S		26MW001SDup		26MW002S		26MW003S		26MW004S	
Date Sampled:		07/12/94		07/12/94		07/12/94		07/13/94		07/10/94	
Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Di-n-butylphthalate	µg/l	-		-		-		2	J	-	
bis(2-ethylhexyl)phthalate	µg/l	-		-		-		1	J	-	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = duplicate of environmental sample.

Conc. = concentration.

Qual. = qualifier.

"J" qualifier = value.

µg/l = micrograms per liter.

- = analyte not detected.

**Table 2-10**  
**Inorganic Analytes Detected in Groundwater Samples at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	M7504		M7504		M7504		M7514		M7491	
	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Matrix:	MPT-26-MW01S	MPT-26-MW01S	MPT-26-MW02S	MPT-26-MW02S	MPT-26-MW02S	MPT-26-MW02S	26MW003S	26MW004S	26MW004S	26MW004S
Sample Location:	26MW001S	26MW001SDup	26MW001SDup	26MW002S	26MW002S	26MW002S	MPT26SS04	MPT26BS14	MPT26BS14	MPT26BS14
Sample No.:	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/13/94	07/10/94	07/10/94	07/10/94
Date Sampled:	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/12/94	07/13/94	07/10/94	07/10/94	07/10/94
Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
Antimony	µg/l	--		--		--		--		
Arsenic	µg/l	1.1	J	--		--		--		
Barium	µg/l	25.7	J	25.8	J	18.3	J	23.6	J	J
Calcium	µg/l	246,000		267,000		183,000		113,000		
Iron	µg/l	89.8	J	324	J	1,320	J	487	J	J
Lead	µg/l	--		6.2		--		2.2		
Magnesium	µg/l	186,000		180,000		154,000		355,000		
Manganese	µg/l	163		251	J	313	J	310	J	
Selenium	µg/l	--		2.6	J	--		--		
Sodium	µg/l	1,740,000	J	1,620,000		1,280,000	J	326,000		
Thallium	µg/l	1.4		--		--		--		
Zinc	µg/l	--		--		--	J	5	J	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = Duplicate of the environmental sample.

Conc. = concentration.

Qual. = qualifier.

"J" = estimated value.

µg/l = micrograms per liter.

-- = analyte not detected.

**Table 2-11**  
**Chemicals of Potential Concern (CPCs) in Groundwater at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Concentration <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
<b>Volatiles (µg/l)</b>									
No Analytes Detected									
<b>Semivolatiles (µg/l)</b>									
Di-n-butylphthalate	1/4	10 to 10	2	2	ND	370	700	No	S, G
bis(2-Ethylhexyl)phthalate	1/4	10 to 10	1	1	6.2	4.8	6	No	S, G
<b>Pesticides/PCBs (µg/l)</b>									
No Analytes Detected									
<b>Inorganics (µg/l)</b>									
Antimony	1/4	2.2 to 22.3	5.2	5.2	ND	1.5	6	Yes	
Arsenic	1/4	0.45 to 0.9	0.775*	0.78	11.4	80,038	50	No	B
Barium	4/4	NR	15 to 25.75*	20.7	10.4	260	2,000	No	S, G
Calcium	4/4	NR	113,000 to 256,500*	194,125	170,450	1,055,398	NA	No	S
Iron	4/4	NR	44 to 1,320	514	2076	13,267	300	Yes	
Lead	2/4	2.2 to 2.9	2.2 to 4,275*	3.2	4	10 <sup>15</sup>	10 <sup>15</sup>	No	S, G
Magnesium	4/4	NR	154,000 to 355,000	255,500	21,234	118,807	NA	Yes	
Manganese	4/4	NR	207* to 313	261	185.8	18	50	Yes	
Selenium	1/4	6.6 to 13.2	4.6*	4.6	11.8	18	50	No	B
Sodium	4/4	NR	1,280,000 to 3,260,000	2,365,000	18,624	396,022	NA	Yes	
Thallium	1/4	0.65 to 1.3	1.025*	1	ND	110,29	2	Yes	
Zinc	1/4	4.2 to 7.3	5	5	50	1,100	5,000	No	B

See notes on next page.

**Table 2-11 (Continued)**  
**Chemicals of Potential Concern (CPCs) in Groundwater at SWMU 26**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Concentration <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
---------	-------------------------------------	---------------------------	---	--	---	---	---	-----------------------	---------------------

<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).

<sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For nondetected values, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.

<sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected, including values qualified as "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).

<sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.

<sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for tap water per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from RBC Table dated February 9, 1995, and are based on a cancer risk of 10<sup>-6</sup> or an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).

<sup>6</sup> Florida Department of Environmental Protection Groundwater Guidance Concentrations (June 1994).

<sup>7</sup> Analytes were included or excluded from the risk assessment for the following reasons:

S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.

G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.

B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.

F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.

C = the analyte is a member of a chemical class that contains other human health chemicals of potential concern (HHCCPs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).

M = the analyte was detected at less than 5 percent and is a HHCCP in more than one media.

P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.

<sup>8</sup> The value is based on arsenic as a carcinogen.

<sup>9</sup> The value is based on chromium hexavalent form.

<sup>10</sup> Treatment technology action limit for drinking water distribution systems per "National Primary Drinking Water Regulations" 40 CFR 141 as amended in 57 FR 41345, August 3, 1993.

<sup>11</sup> The values is based on thallium as thallium sulfate.

Notes: The average of a sample and its duplicate is used for all table calculations.

\* Sample locations include: 26MW001S, 26MW002S, 26MW003S, and 26MW004S.

Duplicate sample includes: 26MW001SD.

Background sample locations include: 01MW001, 08MW005S, 08MW001S, 05MW001R, 8MW5S, MPT-1-MW1-1, MPT-S-1-1, and S1.

NA = not available.

ND = not detected in any background samples.

PCBs = polychlorinated biphenyls.

µg/l = micrograms per liter.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

**Table 2-12**  
**Inorganic Analytes Detected in Groundwater Samples at SWMUs 2 and 3**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	Sample Matrix:	Sample Location:	Sample No.:	Date Sampled:	20866		R8229		20877		R2818		R8607	
					Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
		Groundwater	MPT-2-MW09S	02/09/92										
		Groundwater	MPT-2-MW09S	06/21/94										
		Groundwater	MPT-2-MW10S	02/10/92										
		Groundwater	MPT-2-MW10S	07/13/94										
		Groundwater	MPT-2-MW10S	08/24/94										
Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
Antimony	µg/l	-		-		-		17.4	J	-		-		J
Arsenic	µg/l	-		-		-		5	J	-		-		J
Barium	µg/l	8.7	J	8.5	J	29.1	J	25.2	J	18.1		134,000		
Calcium	µg/l	7,960		65,900		162,000		530		448		110,000		
Iron	µg/l	162		655		474		219,000		149		1,760,000		
Lead	µg/l	4.8	J	-		-		102	J	-		-		J
Magnesium	µg/l	300,000		207,000		282,000		86.5		-		-		
Manganese	µg/l	101		85.3		102		-		-		-		
Selenium	µg/l	-		-		-		-		-		-		
Sodium	µg/l	2,660,000		2,040,000		2,900,000		2,010,000		-		-		
Thallium	µg/l	-		-		-		-		-		-		
Zinc	µg/l	-		39		4.1	J	-		-		-		J

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Conc. = concentration.

Qual. = qualifier.

"J" = estimated value.

µg/l = micrograms per liter.

- = analyte not detected.

in the groundwater samples consist of two SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate) and 12 inorganic analytes (antimony, arsenic, barium, calcium, iron, lead, magnesium, manganese, selenium, sodium, thallium, and zinc). The inorganic groundwater samples were not filtered and represent total concentrations.

#### 2.4 PRELIMINARY RISK EVALUATION.

Surface Soil. None of the VOCs or SVOCs detected in the surface soil samples exceed the bench mark values (Table 2-6). Two of the inorganic analytes, arsenic and beryllium, were detected in surface soil samples at concentrations that exceed bench mark values, which are based on values for a lifetime excess cancer risk of  $10^{-6}$ .

Each of the four surface soil samples contained arsenic at concentrations that exceed the USEPA Region III RBC (0.37 mg/kg) and the proposed Superfund SSL (0.4 mg/kg). Three of the samples contained arsenic at concentrations that exceed the FDEP cleanup goal (0.7 mg/kg). The different bench mark values are a result of variations in assumptions used in the computations. Arsenic was not detected in background surface soil samples.

Only one of the samples (MPT-26-SS04) contained beryllium at a concentration (0.33 mg/kg) higher than the background screening value (0.16 mg/kg) and the USEPA Region III RBC (0.15 mg/kg). Each of the four surface soil samples contained beryllium at concentrations that exceed the proposed Superfund SSL and Florida cleanup goal of 0.1 mg/kg. The surface soil background screening value for beryllium also exceeds the bench mark values.

Subsurface Soil. None of the VOCs or SVOCs detected in the subsurface soil samples exceed the bench mark values (Table 2-7). Two of the inorganic analytes, arsenic and beryllium, were detected in subsurface soil samples at concentrations that exceed bench mark values. Only one of four subsurface soil samples (MPT-26-SS04) contained arsenic at a concentration (1.6 mg/kg) that exceeds the background screening value (0.9 mg/kg). Each of the four subsurface soil samples contained arsenic at concentrations that exceed the USEPA Region III RBC (0.37 mg/kg) and the proposed Superfund SSL (0.4 mg/kg). None of the samples contained arsenic at concentrations that exceed the FDEP cleanup goal (3 mg/kg). The background screening value for arsenic also exceeds the USEPA Region III RBC and the proposed Superfund SSL, but not the FDEP cleanup goal.

Only one of the four subsurface soil samples (MPT-26-BS04) contained concentrations of beryllium (0.23 mg/kg) that exceed the background screening value (0.14 mg/kg) and USEPA Region III RBC (0.15 mg/kg). Each of the four subsurface soil samples contained beryllium at concentrations that exceed the proposed Superfund SSL (0.1 mg/kg). Only one sample contained concentrations of beryllium above the FDEP cleanup goal of (0.2 mg/kg). The background screening value for beryllium exceeds the proposed Superfund SSL and FDEP cleanup goal, but not the USEPA Region III RBC.

Groundwater. None of the SVOCs (phthalates) detected in groundwater samples collected from SWMU 26 monitoring wells exceed the bench mark values (Table 2-11). However, five of the inorganic analytes (antimony, magnesium, manganese, sodium, and thallium) exceed bench mark values. Antimony was detected as a

single occurrence at a concentration ( $5.2 \mu\text{g}/\ell$ ) that exceeds the USEPA Region III RBC ( $1.5 \mu\text{g}/\ell$ ), but was less than the Florida guidance concentration ( $6 \mu\text{g}/\ell$ ), which is a Federal and State promulgated standard.

Magnesium was detected in each of the four SWMU 26 groundwater samples and duplicate at concentrations that exceed the USEPA Region III RBC ( $118,807 \mu\text{g}/\ell$ ). Currently, there is not an established Florida guidance concentration for magnesium.

Manganese was detected in each of the four SWMU 26 groundwater samples and duplicate at concentrations that exceed the USEPA Region III RBC ( $18 \mu\text{g}/\ell$ ) and the Florida guidance concentration ( $50 \mu\text{g}/\ell$ ).

Sodium was detected in each of the four SWMU 26 groundwater samples and the duplicate. Three of the groundwater samples and the duplicate contained concentrations of sodium that exceed the USEPA Region III RBC ( $396,022 \mu\text{g}/\ell$ ). Currently, there is not an established Florida guidance concentration for sodium.

Thallium was detected as a single occurrence at a concentration ( $1.4 \mu\text{g}/\ell$ ) that exceeds the USEPA Region III RBC ( $0.29 \mu\text{g}/\ell$ ), but did not exceed the Florida guidance concentration ( $2 \mu\text{g}/\ell$ ), which is a Federal and State promulgated standard.

Groundwater samples collected from three monitoring wells (MPT-2-MW09S, MPT-2-MW10S, and MPT-2-MW13S) located hydraulically upgradient from SWMU 26 (Figure 2-2) also contained antimony, magnesium, manganese, and sodium (Table 2-12). Thallium was not detected in the groundwater samples collected from the three upgradient monitoring wells (MPT-2-MW09S, MPT-2-MW10S, and MPT-2-MW13S). The concentrations of the four inorganic analytes (antimony, magnesium, manganese, and sodium) in the upgradient wells also exceed the same bench mark values as the SWMU 26 groundwater samples. SWMU 26 does not appear to be the source of antimony, magnesium, manganese, or sodium at the concentrations detected in the groundwater samples. It is more likely that these analytes are related to placing the slurry of dredge materials and sea or brackish water into the eastern dredge spoil basin (SWMU 50) during maintenance dredging of the Mayport Turning Basin or the leaching of metals from landfill SWMUs 2 and 3. The eastern dredge spoil basin (SWMU 50) and landfill SWMUs 2 and 3 are located approximately 600 feet hydraulically upgradient of SWMU 26.

## 2.5 CONCLUSIONS AND RECOMMENDATIONS.

### 2.5.1 Conclusions

Surface and Subsurface Soil. Concentrations of VOCs (acetonitrile, chloroform, 2-butanone, toluene, and xylenes), SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate), metals (arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) and cyanide were detected in surface and subsurface soil samples collected at SWMU 26 (Tables 2-4 and 2-5). Pesticides and PCBs were not detected in the surface and subsurface soil samples. The detected concentrations of VOCs and SVOCs do not exceed any of the human health based risk screening values and, therefore, do not warrant further investigation (Tables 2-6 and 2-7). Concentrations of arsenic and beryllium exceed human health based risk bench mark values that represent a lifetime excess cancer risk



of  $10^{-6}$ . Arsenic, though not detected in the background surface soil samples, was detected in the background subsurface soil samples and beryllium was detected in both the surface and subsurface background soil samples. Background screening values for these analytes also exceed one or more of the bench mark values. It should also be noted that beryllium was not detected in the groundwater samples and arsenic was detected as a single occurrence in the groundwater samples and not determined to be a CPC. However, the potential risk associated with concentrations of arsenic and beryllium that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by the USEPA to be protective of human health (40 CFR Part 300) (see Tables C-1 and C-2, Appendix C).

Because the land features at NAVSTA Mayport are a result of the deposition of dredge material from the Mayport Turning Basin, it cannot be determined whether the concentrations of arsenic and beryllium are related to a release at SWMU 26, or are residual concentrations from the dredge material.

Groundwater. VOCs, pesticides, PCBs, or cyanide were not detected in the groundwater samples collected from the SWMU 26 monitoring wells. Target analytes detected in the groundwater samples collected from SWMU 26 consist of two SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate) and 12 metals (antimony, arsenic, barium, calcium, iron, lead, magnesium, manganese, selenium, sodium, thallium, and zinc) (Tables 2-9 and 2-10). None of the phthalates detected in the SWMU 26 groundwater samples exceed the bench mark values (Table 2-11). However, five of the inorganic analytes (antimony, magnesium, manganese, sodium, and thallium) were detected at concentrations that exceed bench mark values. The State of Florida promulgated water quality standard for manganese also was exceeded. Thallium was detected at a concentration that was less than the FDEP guidance concentration.

Groundwater samples collected from three monitoring wells (MPT-2-MW09S, MPT-2-MW10S, and MPT-2-MW13S) located hydraulically upgradient from SWMU 26 (Figure 2-2) also contained concentrations of antimony, magnesium, manganese, and sodium (Table 2-12). Thallium was not detected in these groundwater samples. The concentrations of the four inorganic analytes (antimony, magnesium, manganese, and sodium) also exceed the same bench mark values as the SWMU 26 groundwater samples. It is likely that these analytes are related to placing the dredge materials into the eastern dredge spoil basin (SWMU 50) during maintenance dredging of the Mayport Turning Basin or the leaching of metals from landfill SWMUs 2 and 3.

2.5.2 Recommendations SWMU 26 is recommended for no further investigation at this time based on the following rationale.

- Anecdotal evidence suggests only inert construction materials were disposed at SWMU 26.
- No pesticides or PCBs were detected in the surface or subsurface soil samples at SWMU 26.
- VOCs (acetonitrile, chloroform, 2-butanone, toluene, and xylenes) and SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate) were detected in surface and subsurface soil samples at concentrations less than the human health based bench mark values.

- Inorganic analytes (arsenic and beryllium) were detected in soil samples at concentrations within a range of potential risk ( $10^{-4}$  to  $10^{-6}$ ) considered by the USEPA as protective of human health (40 CFR Part 300). Arsenic and beryllium were not determined to be CPCs in the groundwater.
- Inorganic analytes detected in the surface and subsurface soil samples are likely related to the deposition of dredge spoil material, and may not represent disposal of hazardous materials.
- VOCs, pesticides, PCBs, or cyanide were not detected in the groundwater samples collected from the SWMU 26 monitoring wells.
- The two phthalate compounds (di-n-butylphthalate, and bis(2-ethylhexyl)-phthalate) detected in the SWMU 26 groundwater samples do not exceed the human health based bench mark values.
- SWMU 26 does not appear to be the source of the four inorganic analytes (antimony, magnesium, manganese, sodium, and thallium) that were detected at concentrations exceeding some of the human health bench mark values. In addition, groundwater in the vicinity of SWMU 26 is being assessed in the RFI for the Group I SWMUs.

The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely to overstate the specific exposure present at the site (i.e., underestimate the concentration that would result in a lifetime excess cancer risk of  $10^{-6}$ ). Because the chemicals were detected in only one of two media (i.e., soil and or groundwater) all of the exposure pathways and assumptions used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations of chemicals may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in lower excess cancer risk than  $10^{-6}$ .

### 3.0 SWMU 49, FLIGHT LINE RETENTION PONDS

**3.1 SITE DESCRIPTION AND BACKGROUND.** The Flight Line Retention Ponds (SWMU 49) are located approximately 1,000 feet north of the eastern dredge spoil disposal area (SWMU 50) (Figure 1-3). SWMU 49 consists of two ponds located on the north side of the Patrol Road and to the south of an aircraft wash rack (Building 1611). The ponds were constructed at the same time that the flight operation facilities were constructed in 1985 (A.T. Kearney, 1989). The land use of the watershed above the Flight Line Retention Pond is highly developed with hangars, flight line aprons, aircraft maintenance facilities, administrative buildings, roadways, and parking lots. Much of this watershed is covered with impervious materials and substantial runoff is likely to be generated during rain events. The retention ponds were constructed to manage runoff and mitigate adverse effects, if any, from runoff received from developed areas in the drainage of the Flight Line Retention Ponds. The western retention pond is located within a fenced area and is not accessible for recreational use. The eastern pond is not fenced and is too small to be viable for recreational fishing.

SWMU 49 collects runoff from the flight operations area southeast of the main runway through a conveyance system of underground stormwater collection conduits and associated drains and open ditches. The watershed that drains into the ponds includes the aircraft parking apron, taxiways, wash racks, Building 1552, vehicle roadways, and parking lots (Figure 3-1). Both ponds are excavated from land surface to a depth of approximately 2 feet below mean sea level (msl).

The eastern pond is approximately 9,000 square feet in area. Three stormwater sewer influent points are located at the eastern pond. Two of the stormwater influent points are located on the north side of the pond and serve two adjacent automobile parking lots and adjacent landscaped areas. These two stormwater culverts are 24 and 36 inches in diameter. A third stormwater influent point is located on the southeast side of the pond and serves landscaped areas adjacent to buildings and parking lots. A 36-inch-diameter culvert is located at the northwestern end of the pond and discharges into the adjacent western pond.

The western pond is irregular in shape with an area of approximately 75,000 square feet. Three stormwater influent points are located at the north and northeast sides of the pond. The northernmost influent points consist of two parallel 48-inch-diameter storm sewers serving the helicopter fly-up rinse area adjacent to the western taxiway. Also on the north side of the pond is a storm sewer influent point located in a narrow cove, which receives drainage from the taxiway and aircraft parking apron. The influent consists of two parallel, 42-inch-diameter storm sewers. The third influent point is located near the northeastern corner of the pond. It consists of a single 18-inch diameter culvert that receives drainage from the helicopter wash rack area located next to the pond.

The western pond discharges into the drainage ditch that parallels Patrol Road to the south through a 36-inch diameter, doubled-barrel culvert located under Patrol Road. The drainage ditch is tidally influenced. A weir, located on the upstream side of the 36-inch double-barrel culverts, maintains the water level in the eastern and western ponds and limits the flow from the ponds to the drainage ditch. The flow direction in the drainage ditch at low tide stages is generally to the south where it empties into Sherman Creek and Chicopit Bay.

The RFA identified the Flight Line Retention Ponds as an SWMU because a fire-fighting extinguishing material called aqueous film forming foam (AFFF) had been discharged to the watershed and rinsate from the aircraft wash rack could be discharged to the ponds by a malfunctioning valve. Runoff from the aircraft maintenance area also discharges to the ponds (A.T. Kearney, 1989). There are no engineered controls such as oil-water separators to minimize the impact of drainage from the areas served by these culverts and associated drainage systems.

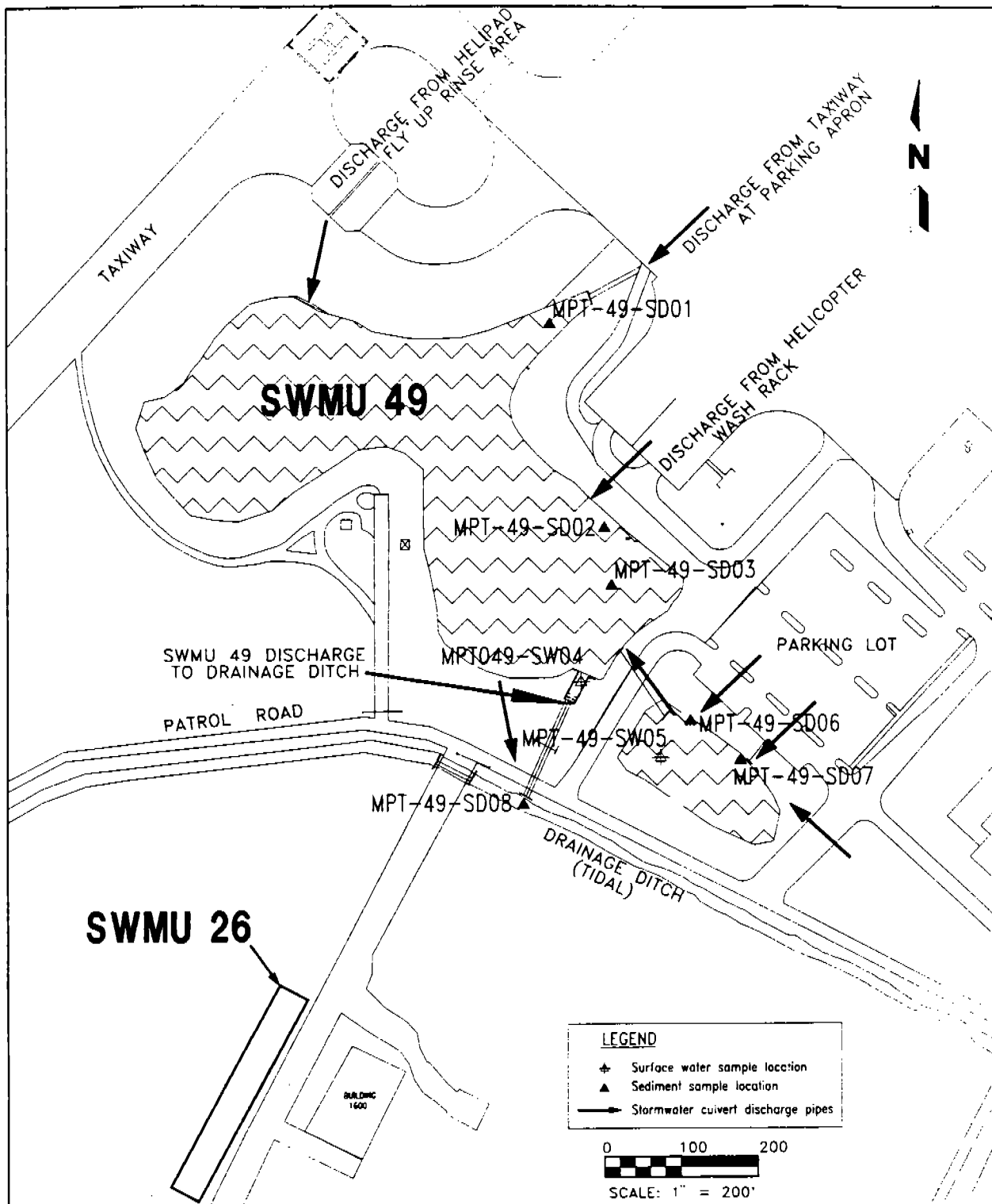
The RFA recommended a determination as to whether AFFF indeed contains Appendix IX (40 CFR 264) hazardous constituents. Currently, it is not known if AFFF contains Appendix IX constituents. Material Safety Data Sheets (MSDS) on AFFF are provided in Appendix D. AFFF is a fluorocarbon surfactant with excellent foaming characteristics that is moderately to extremely toxic (high chemical oxygen demand [COD]) to most organisms (A.T. Kearney, 1989). The high COD could present a threat to biological organisms in the ponds by reducing the level of oxygen. The RFA also recommended that sediment samples be collected from the ponds and the drainage ditch into which the ponds discharge.

**3.2 RFA SV FIELD INVESTIGATIONS.** Based on recommendations of the RFA, surface water and sediment sampling was conducted to assess a possible release to the environment at SWMU 49 and to collect surface water and sediment samples to evaluate these media as potential exposure pathways near stormwater discharge points within the ponds.

Two surface water and six sediment samples, with duplicates and quality assurance and quality control (QA/QC) samples, were collected from SWMU 49 in April 1992. These sample locations are presented on Figure 3-1. Sediment samples were collected on the downstream side of inlet structures where offsite contaminants would be expected to accumulate. Surface water samples were collected upstream of exit structures where floating oil and grease or suspended solids might accumulate. Sample locations were chosen to bias the sampling towards areas most likely to be contaminated based on existing site knowledge and observed runoff patterns.

Based on the findings of the April 1992 RFA SV, additional surface water and sediment sampling was conducted at SWMU 49 on August 2 and September 12, 1994. The surface water and sediment samples were collected to assess whether hazardous constituents were present in the surface water and/or sediment and to confirm whether the contaminants in the area of the culvert outfall near sediment sample MPT-49-SD02 are of limited lateral extent. The following describes the sampling locations at the western and eastern ponds of SWMU 49 (Figure 3-2).

Because many field activities are common to all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (Confirmatory Sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 49 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Surface water and sediment sampling procedures and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).



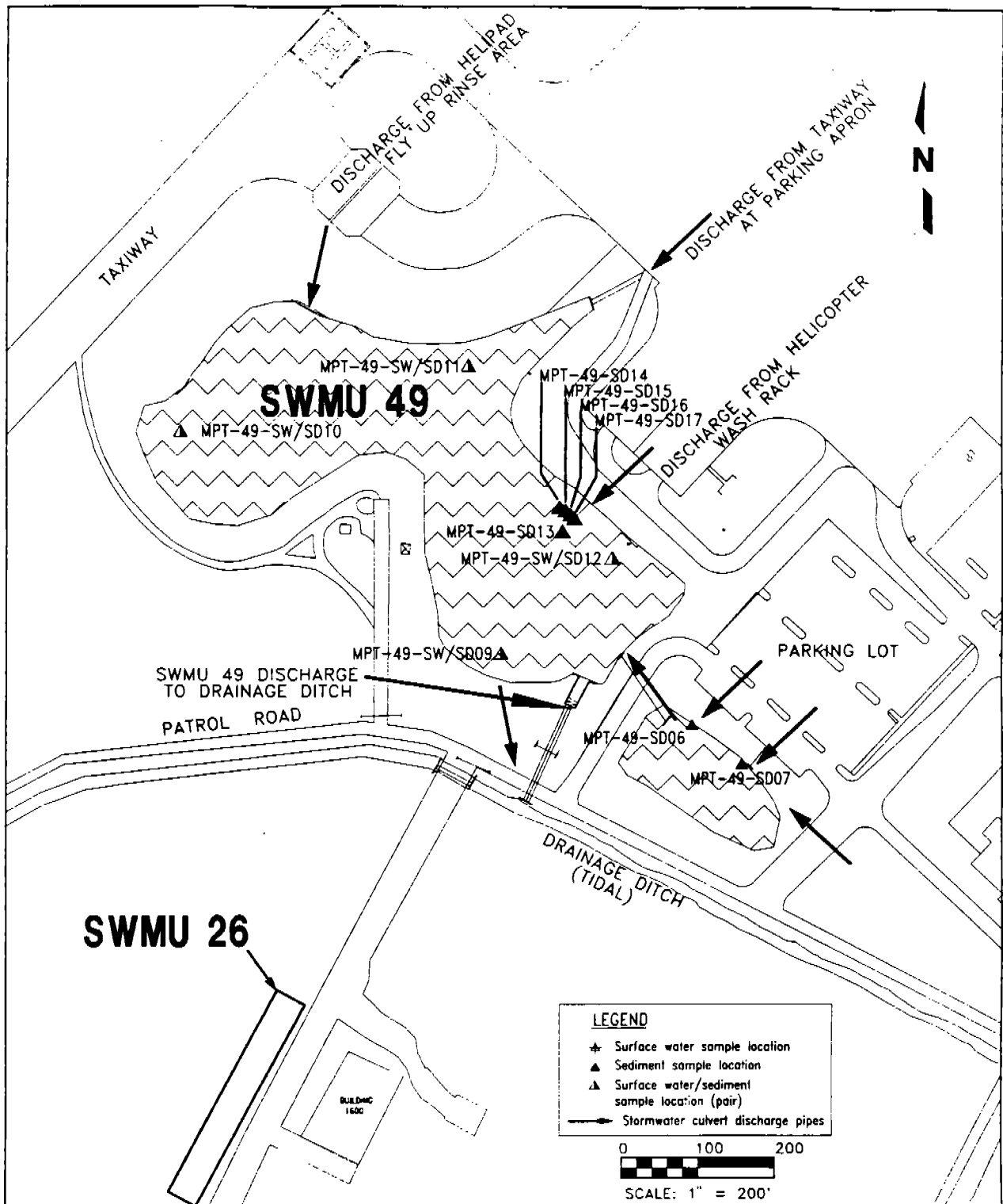
**FIGURE 3-1**  
**1992 SAMPLING LOCATIONS**  
**AT SWMU 49, FLIGHT LINE**  
**RETENTION PONDS**

000300/GLC/4-5-95



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**



**FIGURE 3-2**  
**1994 SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS AT SWMU 49, FLIGHT LINE RETENTION PONDS**



**RCRA FACILITY ASSESSMENT REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION MAYPORT, FLORIDA**

H:\9500\000300\GLC\4-7-95

Surface Water and Sediment Sample Collection Procedure. Surface water and sediment sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991) and Subsection 2.1.3, Surface Water, Sediment, and Sludge Sampling, presented in the GIR.

Western Pond. Five sediment samples, without a corresponding surface water sample, were collected near sediment sample MPT-49-SD02, located at the discharge culvert for the helicopter wash rack. Four surface water and sediment sample pairs also were collected, one near the discharge culvert for the helicopter wash rack, one near the entrance to the discharge culvert to the patrol road drainage ditch, one near the cove that leads from the discharge from the taxiway and parking apron, and one at the northwestern part of the west pond in an area away from the discharge culverts.

Eastern Pond. Two sediment samples, without corresponding surface water samples, were collected from the easternmost retention pond in the immediate vicinity of the culvert on the north bank (Figure 3-2).

Laboratory Analysis. Surface water and sediment samples were analyzed for the same target analytes including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list contained in Appendix IX, 40 CFR 264 and USEPA Contract Laboratory Program target compound list and target analyte list. The analysis was conducted using methods from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW846) (USEPA, 1986). A list of the target analytes is provided in Appendix A. Analytical results for each sample from the 1992 sampling event were presented in the RFA SV Report, Phase 1 (ABB-ES, 1992c), and results from the 1994 sampling event are provided in Appendix B.

Exceptions. Surface water and sediment samples collected during 1992 were only analyzed for SVOCs, pesticides, PCB, metals, and cyanide. The two sediment samples collected from the eastern pond during the 1994 sampling event were analyzed only for pesticides.

3.3 FINDINGS. The following presents a brief description of the surface water and sediment analytical results from the RFA SV sampling activities at SWMU 49.

Surface Water Samples. Table 3-1 summarizes water quality parameters for samples collected during 1994. No water quality parameter measurements were performed for surface water samples collected in 1992. Table 3-2 summarizes the validated analytical results for inorganic target analytes detected in surface water samples collected during 1992 at SWMU 49. Table 3-3 summarizes the validated analytical results for inorganic target analytes detected in surface water samples collected during 1994 at SWMU 49. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 3-4. The target analytes detected in the environmental samples were compared to station wide background surface water samples (ABB-ES, 1995b), and bench mark values from ambient water quality from the Office of Science and Technology, Health and Ecological Criteria Division, Washington D.C., May 1, 1991 (USEPA, 1991b), and Class III marine water quality standards (Chapter 62-302, Florida Administrative Code [FAC], 1995).

**Table 3-1**  
**Water Quality Parameters for SWMU 49 Surface Water Samples**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	M7646	M7646	M7646	M7646	Conc.
Sample Matrix:	Surface Water	Surface Water	Surface Water	Surface Water	Conc.
Sample Location:	MPT-49-SW09	MPT-49-SW10	MPT-49-SW11	MPT-49-SD12	Conc.
Sample No.:	49SW009	49SW010	MPT49SW011	49SW012	Conc.
Date Sampled:	08/02/94	08/02/94	08/02/94	08/02/94	Conc.
					Class III Marine Surface Water Standards 17-302.530 FAC
Common Name	Units	Conc.	Conc.	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	166	150	150	> 20
Ammonia-nitrogen	mg/l	0.3	< 0.3	< 0.3	-
Chloride	mg/l	525	525	512	< 10% of Background
Color	APHA	100	70	70	-
Hardness as CaCO <sub>3</sub>	mg/l	317	288	308	-
Nitrate + nitrite nitrogen	mg/l	< 0.1	< 0.1	< 0.1	-
Phosphorous P, total	mg/l	0.31	0.22	0.25	-
Sulfate	mg/l	57.7	65.1	55.8	-
Sulfide	mg/l	24.7	< 1.0	< 1.0	-
Total Kjeldahl nitrogen	mg/l	2.6	3.2	106	2.3
pH	SU	7.8	8.2	8.5	8.4
					6.5 to 8.5

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

FAC = Florida Administrative Code.

Conc. = concentration.

CaCO<sub>3</sub> = calcium carbonate.

mg/l = milligrams per liter.

% = percent.

APHA = American Public Health Association.

SU = standard unit.



**Table 3-2**  
**Inorganic Analytes Detected in Surface Water Samples at SWMU 49, 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:			21528		21528		21528	
Sample Matrix:			Water		Water		Water	
Sample Location:			MPT-49-SW04		MPT-49-SW04		MPT-49-SW05	
Sample No.:			MPT49SW41		MPT49SW41Dup		MPT49SW51	
Date Sampled:			04/22/92		04/22/92		04/22/92	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
7440-36-0	Antimony	( $\mu\text{g}/\text{l}$ )	-		-		14	J
7440-39-3	Barium	( $\mu\text{g}/\text{l}$ )	6.8	J	7.4	J	10.9	J
7440-47-3	Chromium	( $\mu\text{g}/\text{l}$ )	-		2.6	J	3.5	J
7440-92-1	Lead	( $\mu\text{g}/\text{l}$ )	20.2	J	15.6	J	14.9	J
7440-02-0	Nickel	( $\mu\text{g}/\text{l}$ )	-		-		3.9	J
7440-62-2	Vanadium	( $\mu\text{g}/\text{l}$ )	2.4	J	3.4	J	4.8	J
<p>Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  Suffix Dup = a duplicate sample of the corresponding environmental sample.</p> <p>Conc. = concentration.  Qual. = qualifier.  <math>\mu\text{g}/\text{l}</math> = micrograms per liter.  J = qualifier indicating estimated value.  - = analyte not detected.</p>								

**Table 3-3**  
**Inorganic Analytes Detected in Surface Water Samples at SWMU 49, 1994**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Sample Delivery Group No.:	M7645	M7645	M7645	M7645
Sample Matrix:	Surface Water	Surface Water	Surface Water	Surface Water
Sample Location:	MPT-49-SW09	MPT-49-SW010	MPT-49-SW11	MPT-49-SW12
Sample Number:	49SW009	49SW010	49SW011	49SW012
Sample Date:	02-AUG-94	02-AUG-94	02-AUG-94	02-AUG-94

**Volatile Organic Compounds ( $\mu\text{g}/\text{l}$ )**

None detected

**Semivolatile Organic Compounds ( $\mu\text{g}/\text{l}$ )**

None detected

**Pesticides and PCBs ( $\mu\text{g}/\text{l}$ )**

None detected

**Inorganics ( $\mu\text{g}/\text{l}$ )**

Antimony	—	2.4 J	2.6 J	—
Arsenic	1.7 J	6.8 J	2.9 J	1.4 J
Barium	18.4 J	35.6 J	12 J	15 J
Beryllium	—	0.88 J	—	—
Cadmium	—	6 J	—	—
Chromium	2.1 J	14.1 J	—	—
Copper	12.4 J	18.4 J	—	—
Lead	4.1 J	34.2 J	—	—
Mercury	—	0.23	—	—
Nickel	78.6 J	17.6 J	—	—
Vanadium	4.8 J	29 J	3.4 J	3.3 J
Zinc	38	164	—	—
Cyanide	—	0.33 J	—	—

Notes:  $\mu\text{g}/\text{l}$  = micrograms per liter.  
PCBs = polychlorinated biphenyls.  
— = analyte not detected.  
J = qualifier indicating estimated value.

Table 3-4 Chemicals of Potential Concern (CPCs) in Surface Water Samples at SWMU 49 Groups I and II RFA SV Report U.S. Naval Station Mayport, Florida										
Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Ambient Water Quality Criteria <sup>5</sup>		Class III Marine Surface Water Standards <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
						For Protection of Aquatic Life: Acute/Chronic	For Protection of Human Health			
<b>Volatiles (µg/l)</b>										
No Analytes Detected										
<b>Semivolatiles (µg/l)</b>										
No Analytes Detected										
<b>Pesticides/PCBs (µg/l)</b>										
No Analytes Detected										
<b>Inorganics (µg/l)</b>										
Antimony	3/6	2.2 to 10.9	2.4 to 14	6.3	77.6	<sup>8</sup> 1,500/500	45,000	4,300	No	B
Arsenic	4/6	9.4 to 9.4	1.4 to 6.8	3.2	6.2	<sup>9</sup> 69/36	0.0175	<sup>10</sup> 50	Yes	
Barium	6/6	NR	7.1 to 35.6	15.6	22.6	NA/NA	NA	NA	Yes	
Beryllium	1/6	0.18-0.19	0.88	0.88	ND	NA/NA	0.0641	0.13	Yes	
Cadmium	1/6	2.9 to 3	6	6	3.2	43/9.3	NA	9.3	No	A, M
Chromium	4/6	2 to 2	1.8 to 14.1	5.4	5	<sup>11</sup> 1,100/50 <sup>3</sup> 3,433,000		<sup>11</sup> 50	No	A, H, M
Copper	2/6	4 to 16	12.4 to 18.4	15.4	27.4	2.9/NA	NA	2.9	No	B
Lead	4/6	2 to 2	4.1 to 34.2	17.8	2.6	220/8.5	NA	5.6	Yes	
Mercury	1/6	0.04 to 0.16	0.23 to 0.23	0.23	ND	2.1/0.025	0.146	0.25	Yes	
Nickel	3/6	3.8 to 7.3	3.9 to 78.6	28.8	26	75/8.3	100	8.3	Yes	
Vanadium	6/6	NR	2.9 to 2.9	8	8	NA/NA	NA	NA	Yes	
Zinc	2/6	6 to 29.2	38 to 164	101	4	95/86	NA	86	Yes	
Cyanide	1/6	0.32 to 1.8	0.33	0.33	3	1/NA	NA	1	No	B
See notes on next page.										

**Table 3-4 (Continued)**  
**Chemicals of Potential Concern in Surface Water Samples at SWMU 49**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Ambient Water Quality Criteria <sup>5</sup>		Class III Marine Surface Water Standards <sup>6</sup>	Analyte CPC? <sup>7</sup> (Yes/No)	Reason <sup>7</sup>
						For Protection of Aquatic Life: Acute/Chronic	For Protection of Human Health			

<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).  
<sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.

<sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified as "J"; it does not include those samples where the analyte was not detected ("U" or "UU" qualifiers) and rejected ("R" qualifier.)

<sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.

<sup>5</sup> Values are taken from U.S. Environmental Protection Agency (USEPA) Water Quality Criteria Summary, Office of Science and Technology, Health and Ecological Criteria Division, Washington, D.C., May 1, 1991.

<sup>6</sup> Values are taken from Surface Water Quality Standards, Florida Administrative Code, Chapter 62-302, amended January 1995.

<sup>7</sup> Analytes were included or excluded from the risk assessment for the following reasons:  
 B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations  
 A = the maximum detected concentration did not exceed the Ambient Water Quality Criteria for the Protection of Marine Aquatic organisms and the analyte will not be considered further.

H = the maximum detected concentration did not exceed the Ambient Water Quality Criteria for the Protection of Human Health from the ingestion of fish and the analyte will not be considered further.

M = the maximum detected concentration did not exceed the Marine Surface Water (Class III) Surface Water Quality Standards and the analyte will not be considered further.

<sup>8</sup> Proposed criteria.

<sup>9</sup> The value is based on the trivalent form of arsenic.

<sup>10</sup> The value is based on chromium trivalent form.

<sup>11</sup> The value is based on chromium hexavalent form.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 49SW41; 49SW51; 49SW009; 49SW010; 49SW11; and 49SW12.

Duplicate sample location includes: 49SW41DUP.

Background sample locations include: MPT-B-SW1; MPT-B-SW2; MPT-B-SW3; MPT-B-SW4; MPT-B-SW5; MPT-B-SW6; MPT-b-SW7 and OOSW001.

Duplicate background sample locations include: MPT-B-SW3DUP; and MPT-B-SW7DUP.

µg/kg = micrograms per kilograms.

PCBs = polychlorinated biphenyls.

NA = not available.

ND = not detected in any background samples.

NR = not reported; analyte detected in each sample;  
 reporting limits are same as range of detected concentrations.

Because a different set of target analytes was measured in surface water samples collected in 1992 and 1994, the following presents a description of the target analytes that were detected during each sampling event.

Surface Water Sampling Event, 1992. During April 1992 two surface water samples were collected, one each from the west and east ponds. No organic compounds (VOCs, SVOCs, pesticides, or PCBs) were detected in the surface water samples. Six inorganic analytes (antimony, barium, chromium, lead, nickel, and vanadium) were detected in surface water samples collected at SWMU 49 (Table 3-2). Barium, chromium, lead, and nickel were detected in the sample collected from the west pond. Each of the six analytes were detected in the sample collected near the upstream side of the outfall where it discharges from the western pond to the drainage ditch along the south side of Patrol Road.

Surface Water Sampling Event, 1994. The results of water quality measurements for the 1994 samples are provided in Table 3-1. The sample collected near the upstream side of the outfall of the western pond to the drainage ditch along Patrol Road appears to exhibit a slight difference in water quality parameters from the other sample locations. The western and eastern ponds could be classified as Class III, predominantly freshwater bodies, and the drainage ditch into which the ponds discharge could be classified as a Class III, predominantly marine water body.

During August 1994, four surface water samples were collected from the western pond. No organic compounds (VOCs, SVOCs, pesticides, or PCBs) were detected in the surface water samples. Surface water sample MPT-49-SW09, collected near the outfall of the western pond to the drainage ditch along Patrol Road, contained eight metals (arsenic, barium, chromium, copper, lead, nickel, vanadium, and zinc). Surface water sample MPT-49-SW10, collected in the west part of the western pond, contained 12 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, nickel, vanadium, and zinc) and cyanide. Surface water sample MPT-49-SW11, collected at the cove that leads from the drainage culvert from the taxiway and aircraft parking area, contained four metals (antimony, arsenic, barium, and vanadium), and surface water sample MPT-49-SW12 contained three metals (arsenic, barium, and vanadium).

Sediment Samples. Tables 3-5, 3-6, and 3-7 summarize the validated analytical results for SVOCs, pesticides, and inorganic target analytes detected in sediment samples collected during 1992 at SWMU 49. Table 3-8 summarizes the validated analytical results for VOCs, SVOCs, and pesticides and Table 3-9 summarizes inorganic target analytes detected in sediment samples collected during 1994 at SWMU 49. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 3-10. The target analytes detected in the environmental samples were compared to station wide background sediment samples (ABB-ES, 1995b) and bench mark values from effects range-low (ER-L) and effects range-median (ER-M) values from *The Potential for Biological Effects of Sediment-sorbed Contaminants Tested in the National Status and Trends Program*, National Oceanic and Atmospheric Administration (NOAA) (Long and others, 1993), and threshold effects level (TEL) and probable effects level (PEL) from *Approach to the Assessment of Sediment Quality in Florida Coastal Waters*, MacDonald Environmental Sciences, Ltd. (MacDonald, 1994).

**Table 3-5**  
**Semivolatile Organic Analytes Detected in Sediment Samples at SWMU 49, 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		21528		21528		21528		21528		21528		21528	
Sample Matrix:		Sediment		Sediment		Sediment		Sediment		Sediment		Sediment	
Sample Location:		MPT-49-SD02		MPT-49-SD07		MPT-49-SD06		MPT-49-SD8		MPT-49-SD81		MPT-49-SD-81Dup	
Sample No.:		MPT49SD21		MPT49SD71		MPT49SD61		MPT-49-SD-81		MPT-49-SD-81Dup			
Date Sampled:		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
91-20-3	Naphthalene	µg/kg	16,000		--		--		--		--		
91-57-6	2-Methylnaphthalene	µg/kg	1,300	J	--		--		--		--		
206-44-0	Fluoranthene	µg/kg	370	J	49	J	--		54	J	--		
129-00-0	Pyrene	µg/kg	320	J	52	J	--		56	J	--		
85-68-7	Butylbenzylphthalate	µg/kg	510	J	--		--		--		970		
117-81-7	bis(2-Ethylhexyl)phthalate	µg/kg	26,000	J	420		600	J	--		--		

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = a duplicate sample to the corresponding environmental sample.

Conc. = concentration.  
Qual. = qualifier.  
µg/kg = micrograms per kilogram.  
-- = analyte not detected.  
"J" = estimated value.

**Table 3-6**  
**Pesticides and Polychlorinated Biphenyls (PCBs) Detected**  
**in Sediment Samples at SWMU 49, 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:			21528		21528		21528	
Sample Matrix:			Sediment		Sediment		Sediment	
Sample Location:			MPT-49-SD07		MPT-49-SD08		MPT-49-SD08	
Sample No.:			MPT49SD71		MPT49SD81		MPT49SD81Dup	
Date Sampled:			04/22/92		04/22/92		04/22/92	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
76-44-8	Heptachlor	$\mu\text{g/kg}$	51		-		-	
72-55-9	4,4'-DDE	$\mu\text{g/kg}$	-		11	J	2.6	J
72-54-8	4,4'-DDD	$\mu\text{g/kg}$	38	J	8	J	-	
57-74-09	Chlordane	$\mu\text{g/kg}$	730		-		-	
<p>Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  Suffix Dup = a duplicate sample to the corresponding environmental sample.</p> <p>Conc. = concentration.  Qual. = qualifier.  <math>\mu\text{g/kg}</math> = micrograms per kilogram.  - = analyte not detected.  "J" = estimated value.</p>								

**Table 3-7**  
**Inorganic Analytes Detected in Sediment Samples at SWMU 49, 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.: Sample Matrix: Sample Location: Sample No.:		21528		21528		21528		21528		21528		21528		21528		21528	
		Sediment	MPT-49-SD01	Sediment	MPT-49-SD02	Sediment	MPT-49-SD03	Sediment	MPT-49-SD06	Sediment	MPT-49-SD07	Sediment	MPT-49-SD08	Sediment	MPT-49-SD08	Sediment	MPT-49-SD08
Date Sampled:		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92		04/22/92	
		Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
CAS RN	Common Name	Units															
7440-36-0	Antimony	mg/kg	--		12.7	J	--		--		--		--		--		--
7440-38-2	Arsenic	mg/kg	2.7	J	2.8	J	0.44	J	8.7		1	J	0.85	J	0.4	J	
7440-39-3	Barium	mg/kg	11.4	J	29	J	2.8	J	14.3	J	6.9	J	4.3	J	5.3	J	
7440-41-7	Beryllium	mg/kg	0.4	J	--		--		0.68	J	0.11	J	0.09	J	0.06	J	
7440-43-9	Cadmium	mg/kg	--		9		--		--		--		--		--		
7440-47-3	Chromium	mg/kg	12.2		32.9		--		20		17.6		3.9		4.4		
7440-48-4	Cobalt	mg/kg	2.1	J	1.5	J	--		3.9	J	--		1.1	J	--		J
7440-50-8	Copper	mg/kg	7.6	J	49.7	J	2.2	J	17		11.8		3.4	J	5.3		J
7440-92-1	Lead	mg/kg	5.8	J	76	J	2.3	J	23.8	J	13.3	J	2.7	J	3.4		J
7440-02-0	Nickel	mg/kg	8	J	14.3	J	2.9	J	9.3	J	13.4		1.9	J	1.9		J
7440-49-2	Selenium	mg/kg	0.47	J	0.6	J	--		--		--		--		--		
7440-22-4	Silver	mg/kg	--		1.3	J	--		--		--		--		--		
7440-62-2	Vanadium	mg/kg	12.5	J	3.3	J	1.5	J	22.6		4.3	J	3.4	J	2.5		J
7440-66-6	Zinc	mg/kg	34		97.5		10.1		52.3		26.8		107		19		
5955-70-0	Cyanide	mg/kg	--		1.2	J	--		--		0.82	J	0.9	J	0.33		J

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = a duplicate sample to the corresponding environmental sample.

Conc. = concentration.  
Qual. = qualifier.  
mg/kg = milligrams per kilogram.  
-- = analyte not detected.  
"J" = estimated value.



**Table 3-8**  
**Organic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8730	R8730	R8730	R8730	R8730	R8730
Sample Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Location No.:	MPT-49-SD014	MPT-49-SD015	MPT-49-SD016	MPT-49-SD017	MPT-49-SD017	MPT-49-SD017
Sample No.:	49SD014	49SD015	49SD016	49SD017	49SD017	49SD017Dup
Date Sampled:	12-SEP-94	12-SEP-94	12-SEP-94	12-SEP-94	12-SEP-94	12-SEP-94
<b>VOCs (<math>\mu\text{g/kg}</math>)</b>						
Acetone	--	--	--	--	--	--
Carbon disulfide	--	--	4 J	13	11 J	11 J
2-Butanone	--	--	--	--	--	--
Acetonitrile	--	--	--	--	16 J	16 J
<b>SVOC (<math>\mu\text{g/kg}</math>)</b>						
bis(2-Ethylhexyl)phthalate	94 J	460 J	--	440 J	180 J	180 J
<b>Pesticides and PCBs (<math>\mu\text{g/kg}</math>)</b>						
4,4-DDE	1.2	--	1.8	--	--	--
4,4-DDD	--	--	1.4 J	--	--	--
See notes at the end of table						

**Table 3-8 (Continued)**  
**Organic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Analytical Batch No.:	M7645 Sediment MPT-49-SD009	M7645 Sediment MPT-49-SD010	M7645 Sediment MPT-49-SD011	M7645 Sediment MPT-49-SD012	R873 Sediment MPT-49-SD013
Sample Matrix:	49SD009	49SD010	49SD011	49SD012	49SD013
Location No:	02-AUG-94	02-AUG-94	02-AUG-94	02-AUG-94	12-SEP-94
Sample Number:					
Date Sampled:					
VOCs (µg/kg)					
Acetone	230 J	240 J	--	510 J	--
Carbon disulfide	30	56	18	58	--
2-Butanone	20 J	33 J	15 J	64 J	--
Acetonitrile	--	--	--	--	--
SVOCs (µg/kg)					
bis(2-Ethylhexyl)phthalate	--	--	--	--	110 J
Pesticides and PCBs (µg/kg)					
4,4-DDE	2.8 J	2.4	8.7	9.1	1.4
4,4-DDD	--	--	--	--	--

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = a duplicate sample to the corresponding environmental sample.

SWMU = solid waste management unit.  
VOCs = volatile organic compounds.  
µg/kg = micrograms per kilogram.  
-- = analyte not detected.  
"J" = estimated value.  
SVOCs = semivolatile organic compounds.  
PCBs = polychlorinated biphenyls.  
DDE = dichlorodiphenyldichloroethane.  
DDD = dichlorodiphenyldichloroethane.

**Table 3-9**  
**Inorganic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Analytical Batch No.:	M7645	M7645	M7645	M7645	R073
Sample Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment
Sample location:	MPT-49-SD009	MPT-49-SD010	MPT-49-SD011	MPT-49-SD012	MPT-49-SD013
Sample No.:	49SD009	49SD010	49SD011	49SD012	49SD013
Date Sampled:	02-AUG-94	02-AUG-94	02-AUG-94	02-AUG-94	12-SEP-94
<b>Soils (mg/kg)</b>					
Antimony	2.3 J	1.6 J	2 J	1.7 J	--
Arsenic	4.5 J	6.2 J	10.8	6.9 J	.2 J
Barium	17 J	18 J	19.2 J	18.1 J	3.4 J
Beryllium	0.65 J	0.93 J	1.1 J	0.83 J	--
Cadmium	--	--	--	--	--
Chromium	23.4	28.3	31.8	24.9	4.4
Cobalt	3.1 J	3.2 J	6.9 J	3.6 J	--
Copper	11.9 J	7.4 J	45.7	11.9 J	--
Lead	22.9 J	14.2 J	21.9 J	22.9 J	--
Mercury	--	0.83	--	--	--
Nickel	56	--	70.6	7.8 J	--
Selenium	--	--	--	--	--
Silver	--	--	2.4 J	--	--
Thallium	--	--	--	--	--
Tin	8.8 J	9.2 J	10.9 J	10 J	3.6 J
Vanadium	23 J	29.6 J	37.9 J	26.6 J	3.1 J
Zinc	94.1	42.4	625	57.5	4.9 J
Cyanide	0.12 J	--	--	--	--

See notes at end of table.

**Table 3-9 (Continued)**  
**Inorganic Analytes Detected in Sediment Samples Collected at SWMU 49, 1994**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8730	R8730	R8730	R8730	R8730
Sample Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment
Location No.:	MPT-49SD-014	MPT-49-SD015	MPT-49-SD016	MPT-49-SD017	MPT-49-SD017
Sample No.:	49SD014	49SD015	49SD016	49SD017	49SD017DUP
Date Sampled:	12-SEP-94	12-SEP-94	12-SEP-94	12-SEP-94	12-SEP-94
<b>Soils (mg/kg)</b>					
Antimony	--	--	--	--	--
Arsenic	0.69 J	1.1 J	14.4	5.3	4.2 J
Barium	--	3.6 J	5.9 J	17 J	14.3 J
Beryllium	0.09 J	0.11 J	0.4 J	0.74 J	0.89 J
Cadmium	--	--	0.33 J	--	--
Chromium	1.9 J	5.9	8.6	31.5	33.3
Cobalt	--	--	0.94 J	--	--
Copper	--	--	--	--	37.7
Lead	--	--	2.2	10.9	10.3
Mercury	--	--	--	0.07 J	0.07 J
Nickel	--	--	--	--	73.2
Selenium	--	--	0.16 J	0.55 J	0.64 J
Silver	--	--	--	--	--
Thallium	--	0.21 J	0.32 J	0.31 J	--
Tin	--	--	--	6.8 J	--
Vanadium	1.6 J	3.9 J	15.5	38.3	40.3
Zinc	2.8 J	10.1	6.7	15.9	14.7
Cyanide	0.27 J	--	--	0.42 J	--

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = a duplicate sample to the corresponding environmental sample.

mg/kg = milligrams per kilogram.  
-- = analyte not detected.  
"J" = estimated value.

**Table 3-10**  
**Chemicals of Potential Concern (CPCs) in Sediment Samples at SWMU 49, 1994**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Long and Others			MacDonald		Analyte CPC (Yes/No)	Reason <sup>5</sup>
						ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	TEL <sup>8</sup>			
Volatiles (µg/kg)												
Acetone	3/9	20 to 100	230 to 510	327	ND	NA	NA	NA	NA	NA	Yes	
Acetonitrile	1/9	130 to 450	73	73	ND	NA	NA	NA	NA	NA	Yes	
2-Butanone	4/9	13 to 26	15 to 64	33	ND	NA	NA	NA	NA	NA	Yes	
Carbon disulfide	6/9	6 to 7	4 to 58	29.7	51	NA	NA	NA	NA	NA	Yes	
Semivolatiles (µg/kg)												
Butylbenzylphthalate	2/15	420 to 14,000	510 to 593	532	ND	NA	NA	NA	NA	NA	Yes	
bis(2-Ethylhexyl) phthalate	10/15	890 to 14,000	86- 26,000	2,839	231	NA	NA	182	2,647	2,647	Yes	
Fluoranthene	3/15	420 to 14,000	49 to 370	184	ND	600	5,100	21.2	144	144	Yes	
2-Methylnaphthalene	1/15	420 to 14,000	1,300	1,300	ND	70	670	20.2	201	201	Yes	
Naphthalene	1/15	420 to 14,000	16,000	16,000	ND	160	2,100	86.7	544	544	Yes	
Pyrene	3/15	420 to 14,000	52 to 320	168	282	665	2,600	153	1,398	1,398	Yes	
Pesticides/PCBs (µg/kg)												
Chlordane	1/17	8.4 to 1200	730 to 730	730	ND	NA	NA	2.26	4.79	4.79	Yes	
4,4'-DDD	3/17	1.6 to 240	1.4 to 38	16.1	4.2	1.58	46.1	1.22	7.81	7.81	Yes	
4,4'-DDE	8/17	0.86 to 240	1.2 to 9.1	4.3	5.5	2.2	27	2.07	3.74	3.74	Yes	
Heptachlor	1/17	0.84 to 120	51	51	ND	NA	NA	NA	NA	NA	Yes	

See notes at end of table.

**Table 3-10 (Continued)**  
**Chemicals of Potential Concern (CPCs) in Sediment Samples**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Long and Others		MacDonald		Analyte CPC (Yes/No)	Reason <sup>5</sup>
						ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	PEL <sup>8</sup>		
Inorganics (mg/kg)											
Antimony	5/15	1.3 to 3.7	1.6 to 12.7	4.1	ND	NA	NA	NA	NA	Yes	
Arsenic	15/15	NR	0.20 to 14.4	4.4	5.4	8.2	70	7.24	41.6	Yes	
Barium	14/15	1.7	2.8 to 29	12.2	14.6	NA	NA	NA	NA	Yes	
Beryllium	12/15	0.05 to 0.08	0.08 to 1.1	0.52	0.54	NA	NA	NA	NA	Yes	
Cadmium	2/15	0.25 to 2.4	0.33 to 9	4.7	1.14	1.2	9.6	0.676	4.21	Yes	
Chromium	14/15	2 to 2	1.9 to 32.4	17.8	15.2	81	370	52.3	160	No	L, M, N, P
Cobalt	9/15	0.78 to 1.6	0.8 to 6.90	2.9	4.8	NA	NA	NA	NA	Yes	
Copper	11/15	1 to 2.8	2.2 to 49.7	17.2	6.8	34	270	18.7	108	Yes	
Lead	12/15	0.38 to 1.5	2.2 to 76	18.3	9.2	46.7	218	30.2	112	Yes	
Mercury	2/15	0.04 to 0.27	0.07 to 0.83	0.45	0.98	0.15	0.71	0.13	0.696	No	B
Nickel	10/15	1.5 to 6	1.9 to 70.6	22.2	11.6	20.9	51.6	15.9	42.8	Yes	
Selenium	4/15	0.15 to 1	0.16 to 0.60	0.46	1.1	NA	NA	NA	NA	No	B
Silver	2/15	0.44 to 1.6	1.3 to 2.4	1.85	ND	1.0	3.7	0.733	1.77	Yes	
Thallium	3/15	0.15 to 1	0.21 to 0.32	0.25	1.24	NA	NA	NA	NA	No	B
Tin	6/15	2.1 to 10.6	3.6 to 10.9	7.8	24.6	NA	NA	NA	NA	No	B
Vanadium	15/15	NR	1.5 to 39.3	15.2	14.8	NA	NA	NA	NA	Yes	
Zinc	15/15	NR	2.8 to 625	76.2	25.8	150	410	124	271	Yes	
Cyanide	5/15	0.11 to 0.36	0.27 to 1.2	0.64	ND	NA	NA	NA	NA	Yes	

See notes on next page.

**Table 3-10 (Continued)**  
**Chemicals of Potential Concern (CPCs) in Sediment Samples**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>2</sup>	Background Screening Value <sup>3</sup>	Long and Others		MacDonald		Analyte CPC (Yes/No)	Reason <sup>4</sup>
						ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	PEL <sup>8</sup>		

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U," or "UJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> Effects range-low (ER-L) value represents a concentration intended to estimate conditions in which effects would be rarely observed. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and others, National Oceanic and Atmospheric Administration, 1993.
- <sup>6</sup> Effects range-median (ER-M) represents the concentration where effects would occasionally occur. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and others, National Oceanic and Atmospheric Administration, 1993.
- <sup>7</sup> Threshold Effects Level (TEL) is a concentration at which no or minimal effects have been observed in any test species or biological community. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters" MacDonald, November 1994.
- <sup>8</sup> Probable Effects Level (PEL) is the lower concentration limits at which adverse effects may first be observed. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters," MacDonald, November 1994.
- <sup>9</sup> Analytes were excluded from the risk assessment for the following reasons:  
B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations listed below (for inorganic compounds only).  
L = the maximum detected concentration did not exceed the Effects Range-Low (ER-L).  
M = the maximum detected concentration did not exceed the Effects Range-Medium (ER-M).  
N = the maximum detected concentration did not exceed the Threshold Effects Level.  
P = the maximum detected concentration did not exceed the Probable Effects Level (PEL)

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include:  
Background sample locations include:  
Duplicate background sample locations include:

µg/kg = micrograms per kilograms.  
ND = not detected in any background samples.  
NA = not available.  
PCBs = polychlorinated biphenyls.  
DDD = dichlorodiphenyldichloroethane.  
DDE = dichlorodiphenyldichloroethene.  
mg/kg = milligrams per kilograms.

The ER-L value represents a concentration at the low end of a range of values in which adverse biological effects have been observed. The ER-M represents a concentration approximately midway in a range of values associated with adverse biological effects (Long and others, 1993). The TEL represents the upper limit of the range of sediment contaminant concentrations dominated by No Effects Data (i.e., The Minimal Effects Range). The PEL represents a concentration in the lower range of values that are usually associated with adverse biological effects (MacDonald, 1994).

Because a different set of target analytes was measured in sediment samples collected in 1992 and 1994, the following presents a description of the target analytes that were detected during each sampling event.

Sediment Sampling Event, 1992. Six sediment samples were collected during April 1992, three from the west pond, two from the east pond, and one from the drainage ditch where the west pond discharges. No SVOCs, pesticides, or PCBs were detected in two of the samples (MPT-49-SD01 and MPT-439-SD03) collected from the west pond. Six SVOCs including four polynuclear aromatic hydrocarbons (naphthalene, 2-methylnaphthalene, fluoranthene, and pyrene) and two phthalates (butylbenzylphthalate and bis(2-ethylhexyl)phthalate) were detected in the sediment sample MPT-49-SD02 (Table 3-5). The highest values for these SVOCs were detected at this sample location, which is located near the northeastern shore of the west pond. This sample location is downstream of a stormwater culvert that receives and discharges runoff from the aircraft wash rack area.

One of the sediment samples (MPT-49-SD07) collected from the east pond contained concentrations of fluoranthene and pyrene. Both of the east pond sediment samples contained concentrations of bis(2-ethylhexyl)phthalate.

Sediment sample MPT-49-SD08 collected from the drainage ditch along Patrol Road contained concentrations of fluoranthene and pyrene, but these compounds were not detected in the corresponding duplicate. The duplicate to sediment sample MPT-49-SD08 contained butylbenzylphthalate, which was not detected in the sample.

Pesticides were not detected in the sediment samples collected from the western pond, but were detected in the one sediment sample collected from the east pond and in the sample and corresponding duplicate collected from the drainage ditch (Table 3-6).

Heptachlor, 4,4-dichlorodiphenyldichloroethane (DDD), and Chlordane were detected in sediment sample MPT-49-SD07 collected from the east pond. The sediment sample (MPT-49-SD08) and its duplicate collected from the drainage ditch contained 4,4'-dichlorodiphenyldichloroethane (DDE) and the sample, but not the duplicate, contained concentrations of 4,4'-DDD.

Fourteen metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, vanadium, and zinc) and cyanide were detected in various combinations and concentrations in the sediment samples collected from the west and east ponds and drainage ditch (Table 3-7). The highest detected concentrations of the inorganic target analytes were detected in sediment sample MPT-49-SD02 collected at the western pond.

Sediment Sampling Event, 1994. Sediment samples MPT-49-SD12 through MPT-49-SD17 were collected in the vicinity of sediment sample MPT-49-SD02. Target analytes



detected in these sediment samples consisted of 4 VOCs (acetone, carbon disulfide, 2-butanone, and acetonitrile), 1 SVOC (bis(2-ethylhexyl)phthalate), 2 pesticides (4,4'-DDE and 4,4'-DDD) (Table 3-8), and 16 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, thallium, tin, vanadium, and zinc) and cyanide (Table 3-9).

Sediment sample MPT-49-SD09, collected near the entrance to the culvert that leads to the drainage ditch along Patrol Road, contained 3 VOCs (acetone, carbon disulfide, and 2-butanone), no SVOCs, 1 pesticide (4,4'-DDE), and 12 metals (antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, tin, vanadium, and zinc) and cyanide.

Sediment sample MPT-49-SD10, collected in the west part of the western pond, contained 3 VOCs (acetone, carbon disulfide, and 2-butanone), no SVOCs, 1 pesticide (4,4'-DDE), and 12 metals (antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, tin, vanadium, and zinc).

Sediment sample MPT-49-SD11, collected in the west part of the western pond, contained 2 VOCs (carbon disulfide and 2-butanone), no SVOCs, 1 pesticide (4,4'-DDE), and 13 metals (antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, silver, tin, vanadium, and zinc).

### 3.4 PRELIMINARY RISK EVALUATION.

Surface Water. VOCs, SVOCs, pesticides, and PCBs were not detected in the surface water samples. Concentrations of eight metals (arsenic, barium, beryllium, lead, mercury, nickel, vanadium, and zinc) exceed either background screening values or the bench mark values (Table 3-4). Arsenic was detected only in the four surface water samples collected in August 1994 and exceeded the background screening value (6.2  $\mu\text{g}/\text{l}$ ) in one of the samples. Each of the four samples contained arsenic at concentrations that exceeded the ambient water quality criteria (AWQC) for protection of human health for consumption of fish.

Barium was detected in each of the six surface water samples and a duplicate, and exceeded the background screening value (22.6  $\mu\text{g}/\text{l}$ ) in one of the samples. Currently, there are no benchmark values established for barium.

Beryllium was detected in one of six surface water samples. Beryllium was not detected in the background surface water samples. The detected concentration of beryllium exceeded the AWQC for protection of human health for consumption of fish (0.0641  $\mu\text{g}/\text{l}$ ) and the Class III marine surface water standard (0.13  $\mu\text{g}/\text{l}$ ).

Lead was detected in the two surface water samples and duplicate collected in April 1992 and two of the samples collected in August 1994 and exceeded the background screening value (2.6  $\mu\text{g}/\text{l}$ ) in each of the samples. The bench mark values for AWQC protection of aquatic life (chronic) (8.5  $\mu\text{g}/\text{l}$ ) and Class III marine surface water standard (5.6  $\mu\text{g}/\text{l}$ ) were exceeded by the concentration of lead in the two surface water samples and duplicate collected in April 1992 and two of the surface water samples collected in August 1994.

Mercury was detected as a single occurrence in one of the surface water samples collected in August 1994. Mercury was not detected in the background surface water samples. The detected concentration of mercury exceeded the bench mark value for AWQC protection of aquatic life (chronic) (0.025  $\mu\text{g}/\text{l}$ ).

Nickel was detected in one of the surface water samples collected in April 1992 and two of the surface water samples collected during August 1994, and exceeded the background screening value ( $26 \mu\text{g}/\text{l}$ ) in one of the surface water samples collected in August 1994. The two surface water samples collected in August 1994 contained nickel at concentrations that exceeded the AWQC protection of aquatic life (acute,  $75 \mu\text{g}/\text{l}$ , and chronic,  $8.3 \mu\text{g}/\text{l}$ ) and Class III marine surface water standard ( $8.3 \mu\text{g}/\text{l}$ ).

Vanadium was detected in each of the six surface water samples and duplicate. Only one of the samples contained vanadium at a concentration that exceeded the background screening value ( $8 \mu\text{g}/\text{l}$ ). Currently, there are no bench mark values established for vanadium.

Zinc was detected in two of the surface water samples collected in August 1994 and exceeded the background screening value ( $4 \mu\text{g}/\text{l}$ ) in both of the samples. One of the surface water samples collected in August 1994 contained zinc at a concentration that exceeded the AWQC protection of aquatic life (acute,  $95 \mu\text{g}/\text{l}$ , and chronic,  $86 \mu\text{g}/\text{l}$ ) and Class III marine surface water standard ( $86 \mu\text{g}/\text{l}$ ).

Because SWMU 49 is a stormwater retention pond and has restricted access (chainlink fence), it is not likely to be used for recreational fishing. However, it is common to see birds foraging at SWMU 49.

Sediment. Four VOCs (acetone, acetonitrile, 2-butanone, and carbon disulfide) were detected in sediment samples collected during August and September 1994. Carbon disulfide was detected in the background samples (background screening value,  $51 \mu\text{g}/\text{kg}$ ). VOCs are not eliminated as a compound of potential concern because of detection in background sediment samples. Currently, there are no bench mark values available to assess the VOCs (Table 3-10) and they are considered CPCs.

Six SVOCs (naphthalene, 2-methylnaphthalene, fluoranthene, pyrene, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate) were detected in sediment samples collected during April 1992 and only one SVOC (bis(2-ethylhexyl)phthalate) was detected in the sediment samples collected during August and September 1994. Pyrene (background screening value,  $282 \mu\text{g}/\text{kg}$ ) and bis(2-ethylhexyl)phthalate (background screening value,  $231 \mu\text{g}/\text{kg}$ ) were detected in background sediment samples. SVOCs are not eliminated as CPCs because of detection in background sediment samples.

Currently, no bench mark value is available to assess butylbenzylphthalate; therefore, it is considered a CPC. (Bis(2-ethylhexyl)phthalate was detected in 10 of 15 sediment samples and exceeded the TEL ( $182 \mu\text{g}/\text{kg}$ ) in four samples. Fluoranthene was detected in 3 of 15 sediment samples at concentrations that exceed the TEL ( $21.2 \mu\text{g}/\text{kg}$ ) and in one sample at a concentration that exceeded the PEL ( $144 \mu\text{g}/\text{kg}$ ). 2-Methylnaphthalene was detected as a single occurrence ( $1,300 \mu\text{g}/\text{kg}$ ) and exceeded the ER-L ( $70 \mu\text{g}/\text{kg}$ ), ER-M ( $670 \mu\text{g}/\text{kg}$ ), the TEL ( $20.2 \mu\text{g}/\text{kg}$ ), and PEL ( $201 \mu\text{g}/\text{kg}$ ). Naphthalene was detected as a single occurrence ( $16,000 \mu\text{g}/\text{kg}$ ), and exceeded bench mark values for ER-L ( $160 \mu\text{g}/\text{kg}$ ), ER-M ( $2,100 \mu\text{g}/\text{kg}$ ), TEL ( $86.7 \mu\text{g}/\text{kg}$ ) and PEL ( $544 \mu\text{g}/\text{kg}$ ). Pyrene was detected in 3 of 15 sediment samples and exceeded the TEL ( $153 \mu\text{g}/\text{kg}$ ) in one sediment sample.

Four pesticide (chlordane, 4,4'-DDD, 4,4'-DDE, and heptachlor) were detected in sediment samples collected during April 1992. Only 4,4'-DDD and 4,4'-DDE were

detected in the sediment samples collected during August and September 1994. Chlordane was detected as a single occurrence (730  $\mu\text{g/kg}$ ) and exceeded the TEL (2.26  $\mu\text{g/kg}$ ) and PEL (4.79  $\mu\text{g/kg}$ ). 4,4'-DDD was detected in 3 of 17 sediment samples at concentrations that exceed the ER-L (1.58  $\mu\text{g/kg}$ ) and TEL (1.22  $\mu\text{g/kg}$ ) and in 2 samples at concentrations that exceed the PEL (7.81  $\mu\text{g/kg}$ ). 4,4'-DDE was detected in 8 of 17 sediment samples and exceeded the ER-L (2.2  $\mu\text{g/kg}$ ) and TEL (2.07  $\mu\text{g/kg}$ ) in six samples and the PEL (3.74  $\mu\text{g/kg}$ ) in three samples. Currently, no bench mark value is available to assess heptachlor; therefore, it is considered a CPC.

Thirteen inorganic analytes (antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, lead, nickel, silver, vanadium, zinc, and cyanide) were detected in the SWMU 49 sediment samples at concentrations that exceed background or bench mark values. Antimony, silver, and cyanide were not detected in background sediment samples, nor are there bench mark values for ER-L, ER-M, TEL, or PEL. In addition, ER-L, ER-M, TEL, nor PEL values have not been established for barium, beryllium, cobalt, selenium, thallium, tin, vanadium, and cyanide.

Eleven of the metals (arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) exceeded their respective background screening values.

Seven of the inorganic analytes (arsenic, cadmium, copper, lead, nickel, silver, and zinc) detected in the sediment samples exceeded one or more of the bench mark values. Concentrations of arsenic exceeded the TEL (7.24 mg/kg) and ER-L (8.2 mg/kg) in 3 of 15 sediment samples, but were less than the ER-M (70 mg/kg) and the PEL (41.6 mg/kg). The background screening value for arsenic (5.4 mg/kg) was less than the ER-L, ER-M, TEL, and PEL values.

Concentrations of cadmium exceeded the ER-L (1.2 mg/kg), approach the ER-M (9.6 mg/kg), and exceeded the TEL (0.676 mg/kg) and PEL (4.21  $\mu\text{g/kg}$ ) in 1 of 15 sediment samples. Cadmium was detected in only one other sample at concentrations less than the bench mark values. The background screening value for cadmium (1.14 mg/kg) also exceeds the MacDonald TEL.

Concentrations of copper exceeded the TEL (18.7 mg/kg) and the ER-L (34 mg/kg) in 3 of 15 sediment samples, but were less than the ER-M (270 mg/kg), and the PEL (108 mg/kg). The background screening value for copper (6.8 mg/kg) was less than the ER-L, ER-M, TEL, and PEL values.

Concentrations of lead exceeded the TEL (30.2 mg/kg) and the ER-L (46.7 mg/kg) in 1 of 15 sediment samples. Concentrations of lead were less than the ER-M (218 mg/kg) and the PEL (112 mg/kg). The background screening value for lead (9.2 mg/kg) was less than the ER-L, ER-M, TEL, and PEL values.

Concentrations of nickel exceeded the ER-L (20.9 mg/kg), the ER-M (51.6 mg/kg), the TEL (15.9 mg/kg), and the PEL (42.8 mg/kg) values in 3 of 15 sediment samples. The background screening value for nickel (11.6 mg/kg) was less than the bench mark values.

Concentrations of silver exceeded the ER-L (1.0 mg/kg), the TEL (0.733 mg/kg), and PEL (1.77 mg/kg) values in 2 of 15 sediment samples, but was less than the ER-M (3.7 mg/kg). Silver was not detected in the background sediment samples.

One of the 15 sediment samples contained zinc at a concentration (625 mg/kg) that exceeded the ER-L (150 mg/kg), ER-M (410 mg/kg), TEL (124 mg/kg), and PEL (271 mg/kg). The background screening value for zinc (25.8 mg/kg) was less than the Long and others ER-L and ER-M values and the MacDonald TEL and PEL values.

### 3.5 CONCLUSIONS AND RECOMMENDATIONS.

#### 3.5.1 Conclusions

Surface Water. The western and eastern ponds could be classified as Class III predominantly freshwater bodies, and discharge to a drainage ditch that could be classified as a Class III, predominantly marine water body. Because SWMU 49 discharges to a Class III marine water body, the surface water samples collected from SWMU 49 were compared to Class III marine standards.

SWMU 49 is a stormwater retention pond with restricted access (chain-link fence) and, therefore, is not likely to be used for recreational fishing. However, it is common to see birds foraging at SWMU 49.

During April 1992 two surface water samples were collected, one each from the west and east ponds. No organic compounds (VOCs, SVOCs, pesticides, or PCBs) were detected in the surface water samples. Six inorganic analytes (antimony, barium, chromium, lead, nickel, and vanadium) were detected in surface water samples collected at SWMU 49 (Table 3-2).

During August 1994, four surface water samples were collected from the western pond. No organic compounds (VOCs, SVOCs, pesticides, or PCBs) were detected in the surface water samples. Twelve metals (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, nickel, vanadium, and zinc) and cyanide were detected in surface water samples from SWMU 49 (Table 3-3).

Six of the metals (arsenic, barium, lead, nickel, vanadium, and zinc) exceeded background screening criteria. Beryllium and mercury were not detected in background surface water samples. The highest detected concentrations of arsenic, barium, lead, nickel, and zinc exceeded their respective background screening values (Table 3-4).

Target analytes detected at concentrations that exceeded the AWQC for protection of aquatic life, acute, were mercury, nickel and zinc. Target analytes detected at concentrations that exceeded the AWQC for protection of aquatic life (chronic) were arsenic. The Class III marine surface water standards were exceeded by barium, mercury, nickel, and zinc. Currently, no bench mark values have been established for vanadium.

Based on comparison of the metals detected in the surface water samples with the background screening criteria and the bench mark values, surface water in the SWMU 49 western and eastern ponds may be adversely impacted by discharge of stormwater from the industrial areas served by the stormwater retention ponds.

Sediment. During April 1992, six sediment samples were collected, three from the western pond, two from the eastern pond, and one from the drainage ditch along the south side of Patrol Road. These samples were not analyzed for VOCs. Target analytes consisting of 6 SVOCs (naphthalene, 2-methylnaphthalene, fluoranthene,

pyrene, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate), 4 pesticides (heptachlor, 4,4'-DDE, 4,4'-DDD, and Chlordane), and 14 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, vanadium, and zinc), and cyanide were detected in various combinations and concentrations in the sediment samples collected from the western and eastern ponds and drainage ditch.

During August and September 1994, 11 sediment samples were collected, 9 from the western pond and 2 from the eastern pond. The samples collected from the eastern pond were analyzed only for pesticides. Target analytes consisting of 4 VOCs (acetone, carbon disulfide, 2-butanone, and acetonitrile), 1 SVOC (bis(2-ethylhexyl)phthalate), 2 pesticides (4,4'-DDE and 4,4'-DDD) and 15 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, vanadium, and zinc) and cyanide were detected in various combinations and concentrations in the sediment samples collected from the western and eastern ponds.

Eleven of the metals (arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) exceeded background screening criteria. Antimony, silver, and cyanide were not detected in background sediment samples. The highest detected concentrations of arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc exceeded their respective background screening values (Table 3-4). None of the organic compounds detected in sediment samples was eliminated as being of concern because of being detected in background sediment samples.

Currently, no bench mark values are available to assess the VOCs acetone, acetonitrile, 2-butanone, and carbon disulfide, the SVOC butylbenzylphthalate, and the pesticide heptachlor detected in the sediment samples; therefore, these organic compounds are considered CPCs. Bis(2-ethylhexyl)phthalate and pyrene were detected at concentrations that exceed the TEL. Fluoranthene was detected at concentrations that exceed the TEL and PEL. 2-Methylnaphthalene and naphthalene were detected at concentrations that exceed the ER-L, ER-M, TEL and PEL. The pesticides chlordane, 4,4'-DDD, and 4,4'-DDE were detected at concentrations that exceed the TEL and PEL. The inorganics arsenic, cadmium, copper, lead, mercury, nickel, silver, and zinc exceeded ER-L and TEL screening values and concentrations of cadmium, mercury, nickel, silver and zinc exceeded ER-M and PEL screening values.

Comparison of organic compounds and metals detected in the sediment samples to the background screening and bench mark values suggests that sediment in the SWMU 49 western and eastern ponds may be adversely impacted by discharge of stormwater runoff from the industrial areas served by the stormwater retention ponds. This is based on the detection of multiple organic and inorganic target analytes at concentrations where adverse biological effects are beginning to be observed (i.e., at concentrations greater than the ER-M and PEL).

Potential sources of contamination to surface water and sediment in the SWMU 49 stormwater ponds appear to be discharge of storm sewers from the industrial area and associated aircraft parking and taxiways and vehicle parking areas.

**3.5.2 Recommendations** An RFI focused toward ecological risk assessment or interim measures to remove the sediment in the basins is recommended for SWMU 49. The focused RFI should include ecological diversity measurements and aquatic and

sediment toxicity testing to assess whether to place SWMU 49 on the no further action list, establish a monitoring program to assess whether continued discharge from the industrial area is adversely affecting the ecology of the two ponds or conduct a corrective measures study based on the following rationale.

- SWMU 49 is a stormwater retention pond with restricted access to the western pond (chain-link fence) and is not likely to be used for recreational fishing. However, it is common to see birds foraging at SWMU 49.
- VOCs, SVOCs, pesticides, and PCBs were not detected in the surface water samples.
- Eight of the metals (arsenic, barium, beryllium, lead, mercury, nickel, vanadium, and zinc) exceeded background screening criteria for surface water.
- Concentrations of six metals (arsenic, beryllium, lead, mercury, nickel, and zinc) exceeded the surface water bench mark values.
- VOCs (acetone, acetonitrile, 2-butanone, and carbon disulfide), SVOC (butylbenzylphthalate), and pesticide (heptachlor) were detected in the sediment samples, and currently there are no bench mark values to assess these compounds.
- Bis(2-ethyl(hexyl)phthalate was detected at concentrations that exceed the TEL and fluoranthene was detected at concentrations that exceed the TEL and PEL.
- 2-Methylnaphthalene and naphthalene exceeded bench mark values for ER-L and ER-M, TEL, and PEL.
- Chlordane, 4,4'-DDD and 4,4'-DDE exceeded the TEL and PEL bench mark values.
- Eleven of the metals (arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) exceeded background screening criteria for sediment.
- Eight metals (arsenic, cadmium, copper, lead, mercury, nickel, silver, and zinc) detected in the sediment samples exceeded bench mark values.
- Concentrations of organic and inorganic target analytes exceeded bench mark values where adverse biological effects are beginning to be observed.
- Potential sources of contamination to surface water and sediment in the SWMU 49 stormwater ponds appear to be from discharge of storm sewers from the industrial area and associated aircraft parking and taxiways and vehicle parking areas.

#### 4.0 SWMU 50, DREDGE SPOIL DISPOSAL AREAS

4.1 SITE DESCRIPTION AND BACKGROUND. SWMU 50 consists of two holding areas located in the southwest part of NAVSTA Mayport (Figure 1-3) that are used to contain materials dredged from the Mayport Turning Basin. The eastern holding area is roughly triangular and covers an area of approximately 1/4 square mile. The western holding area is roughly rectangular and covers an area of approximately 1/3 square mile. Both holding areas were constructed in marshy lowlands and are encircled with earthen dikes approximately 25 feet above the surrounding land surface. The top of the dikes are approximately 15 feet wide.

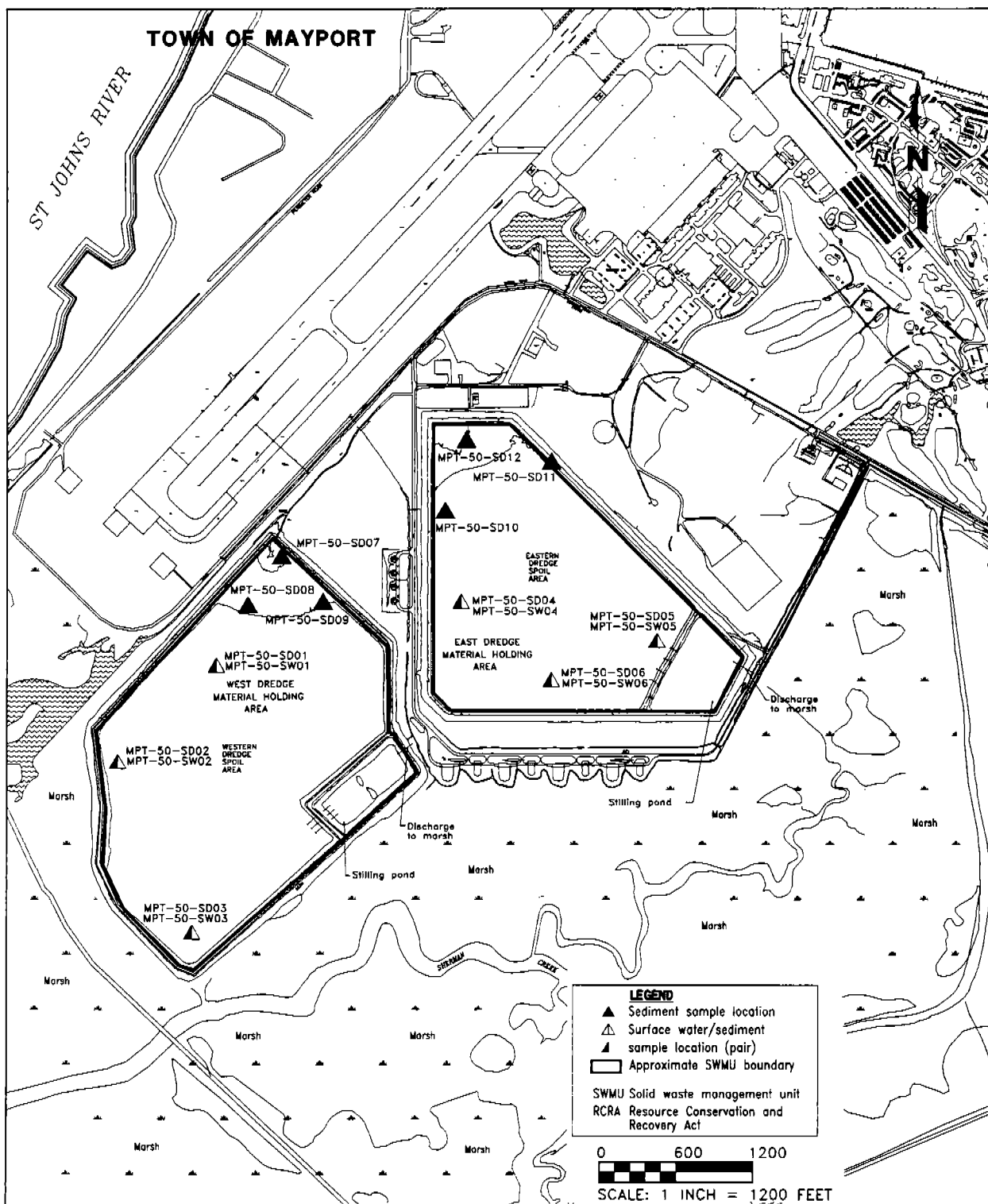
Surface water in the western and eastern dredge material holding areas is an ephemeral feature that is present during dredging activities and varies depending on the frequency and amount of rainfall. Because the dredge material holding areas do not maintain water for a sufficient duration, use of this area for recreational harvesting of aquatic species is not viable. The dredge material holding areas are viable foraging areas for birds. Least terns utilize dry sand and gravel parts of the holding areas for nesting.

Surface water in the dredge material holding areas is discharged to adjacent marsh areas. Prior to discharge the water flows through a stilling pond, which reduces the introduction of sediment to the marsh (Figure 4-1). The marsh area is a Class III marine environment.

Material dredged from the Mayport Turning Basin is periodically (every 2 to 3 years) placed in the holding areas. The placement of dredge material in the eastern holding area occurred from approximately the early 1940's and was discontinued temporarily from 1987 until 1994. The western basin has been active from 1973 to 1994. Both holding areas have reached their maximum capacity. Future dredging activities may involve offshore disposal of dredged materials unless some of the materials in the holding areas is removed. The Navy plans to remove the dredge material to provide capacity for future maintenance dredging of Mayport Turning Basin. A copy of the correspondence is provided in Appendix E.

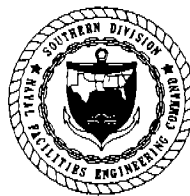
The RFA identified the holding areas as an SWMU based on analyses of past sediment samples from the Mayport Turning Basin that suggested sediment placed in the holding areas could contain metals and organic compounds (e.g., oil and grease). Sediment samples were collected from the Mayport Turning Basin in 1971 during preparation for dredging activities scheduled in 1972. The analytical results indicated that heavy metals in the sediment exceeded USEPA standards. The sediment was reportedly dredged and placed at an offshore location (A.T. Kearney, 1989).

A 1978 study of sediment samples collected from the Mayport Turning Basin suggests that concentrations of mercury, zinc, iron, chromium, and vanadium were at higher concentrations in the sediment than concentrations of cadmium, lead, nickel, copper, beryllium, selenium, and arsenic. The study also compared the 1978 results to data from 1971, 1974, and 1976 and noted that compared to earlier analytical results, the concentrations of arsenic, cadmium, chromium, iron, lead, mercury, nickel, and oil and grease showed a decrease and concentration of zinc and COD showed a slight increase (A.T. Kearney, 1989).



**FIGURE 4-1**  
**1992 SEDIMENT AND SURFACE**  
**WATER SAMPLING LOCATIONS AT SWMU 50,**  
**EASTERN AND WESTERN DREDGE**  
**SPOIL DISPOSAL AREA**

H:\9500\000300\GLC-NAB-JC\11-28-95



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**



A study conducted in 1983 and 1984 included sampling of both the St. Johns River and the Mayport Turning Basin. The study indicates that oil and grease, copper, iron, lead, nickel, and zinc were present in Mayport Turning Basin sediment. The study also suggests that the Mayport Turning Basin sediment contained higher concentrations of the inorganics than the samples collected from the St. Johns River (A.T. Kearney, 1989).

Prior to dredging activities in 1993, two sediment samples were collected from the Mayport Turning Basin (see Figure 1 in Appendix F). The samples were analyzed for toxicity characteristics by the toxicity characteristic leaching procedure (TCLP) and for VOCs, SVOCs, chlorinated pesticides, PCBs, cyanide, and metals listed in the Appendix IX groundwater monitoring list (40 CFR 264) by SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (USEPA, 1986). The extracts from the sediment samples did not contain any of the target analytes at concentrations that would exceed criteria used to characterize waste as hazardous (see Tables 1 through 4 in Appendix F).

The results of the analyses indicate the presence of the following in sediment samples: 4 VOCs (acetone, 2-chloroethylvinylether, isobutyl alcohol, and methylene chloride), 17 SVOCs (acenaphthene, anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, bis(2-ethylhexyl)phthalate, di-n-butylphthalate, and 1,4-dichlorobenzene), 2 pesticides (beta-BHC and 4,4"-dichlorodiphenyl-dichlorotrichloroethane [DDT]), and 17 inorganics (arsenic, aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, sodium, vanadium, and zinc) (see Tables 5 through 7 in Appendix F).

Maintenance dredging of Mayport Turning Basin was conducted from December 1993 to August 1994 and dredged material was placed into the western and eastern holding areas (SWMU 50). The dredging was performed by the U.S. Army Corps of Engineers in accordance with permit number 199004179 (IR-RP) issued on September 25, 1991, under the authority of Section 10 of the Rivers and Harbors Act, 33 U.S. Code (USC) 403. Because of this recent dredging event, the western and eastern holding areas (SWMU 50) were not accessible for sampling in 1994.

The RFA suggested that sediment samples should be collected at the eastern and western dredge material holding areas at various depths and locations and that the samples be analyzed for SVOCs and metals. The RFA also suggested that groundwater, surface water, and sediment samples be collected from areas adjacent to SWMU 50 (A.T. Kearney, 1989).

**4.2 RFA SV FIELD INVESTIGATIONS.** In April 1992, surface water and sediment (dredge material) sampling was conducted to assess the possible presence of hazardous constituents at SWMU 50. The objective of the data gathering activities at SWMU 50 was to collect surface water and sediment from various depths within the eastern and western dredge material holding areas. The purpose of the sampling event was to confirm whether contaminants are present at SWMU 50.

Because the sampling event was only to confirm whether contamination was present and the areal extent of the dredge material holding areas, sample locations were widely distributed to collect sediment samples representing various depths within

the eastern and western areas. The samples from each dredge material holding area consisted of three paired surface water and sediment (saturated sediment) samples and three sediment samples from dry parts (unsaturated sediment samples) of the holding areas.

Because many field activities are common to all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 50 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Surface water and sediment sampling procedures and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).

Surface Water and Sediment Sample Collection Procedure. Surface water and sediment sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991) and Subsection 2.1.3, Surface Water, Sediment, and Sludge Sampling, located in the GIR.

Laboratory Analysis. Surface water and sediment samples were analyzed for the same target analytes including SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list contained in Appendix IX, 40 CFR 264, and USEPA Contract Laboratory Program target compound list and target analyte list. VOCs were not analyzed. Analysis of surface water and sediment samples was by methods contained in Test Methods for Evaluating Solid Waste Chemical/Physical Methods (SW 846) (USEPA, 1986). A list of the target analytes is provided in Appendix A. Analytical results for each sample from the 1992 sampling event were presented in the RFA SV Report, Phase 1 (ABB-ES, 1992c), and the results of the 1994 sampling event are provided in Appendix B.

4.3 FINDINGS. The following presents the results of analysis of surface water and sediment samples collected within the eastern and western dredge material holding areas (SWMU 50).

4.3.1 SWMU 50 Surface Water and Sediment Samples. No water quality parameter measurements were performed for the surface water samples. Table 4-1 summarizes the validated analytical results for inorganic target analytes detected in surface water samples collected during 1992 at SWMU 50. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 4-2. The target analytes detected in the environmental samples were compared to background surface water samples collected from Mayport Turning Basin and the St. Johns River (ABB-ES, 1995b), and bench mark values for ambient water quality (USEPA, 1991b) and Class III marine water quality standards (Chapter 62-302, FAC 1995).

Three surface water samples were collected at each of the dredge material holding areas (Figure 4-1). SVOCs, pesticides, and PCBs were not detected in the surface water samples. Twelve inorganic analytes were detected including antimony, arsenic, barium, cadmium, chromium, cobalt, lead, nickel, tin, vanadium, zinc, and cyanide (Table 4-1). Cobalt, lead, and cyanide were detected only in the surface water samples collected from the western holding area, and antimony and zinc were detected only in the surface water samples collected from the eastern holding area.

**Table 4-1**  
**Inorganic Analytes Detected in Surface Water Samples at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.: Sample Matrix: Sample Location: Sample No.: Date Sampled:	CAS RN	Common Name	Units	21528 Water		21528 Water		21528 Water		21541 Water		21528 Water		21528 Water	
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
	7440-36-0	Antimony	µg/l	--		--		--		--		--		21.3	J
	7440-38-2	Arsenic	µg/l	27.4	J	47.8	J	35.9	J	35.8		50.6	J	33.8	J
	7440-39-3	Barium	µg/l	17.5	J	9.0	J	8.8	J	27.9	J	33.8	J	27.4	J
	7440-43-9	Cadmium	µg/l	--		--		3	J	--		5.3	J	--	
	7440-47-3	Chromium	µg/l	12.2		--		--		--		6.6	J	--	
	7440-48-4	Cobalt	µg/l	4	J	--		--		--		--		--	
	7440-92-1	Lead	µg/l	22.1	J	41.2	J	17.3	J	--		--		--	
	7440-02-0	Nickel	µg/l	14.1	J	--		8.7	J	12.1	J	31.6	J	8.7	J
	7440-31-5	Tin	µg/l	28.7	J	--		--		--		--		33.5	J
	7440-62-2	Vanadium	µg/l	25.7	J	11.4	J	11.4	J	11.2	J	21.5	J	16.4	J
	7440-66-6	Zinc	µg/l	--		--		--		--		94		--	
	5955-70-0	Cyanide	µg/l	--		--		1.9	J	--		--		--	

Notes: Suffix "D" on Sample No. indicates a duplicate sample to the corresponding environmental sample.  
Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Conc. = concentration.  
Qual. = qualifier.  
µg/l = micrograms per liter.  
-- = analyte not detected.  
"J" = estimated value.

**Table 4-2**  
**Chemicals of Potential Concern Detected in Surface Water at SWMU 50, April 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>(*)2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>		Ambient Water Quality Criteria <sup>5</sup>		Class III Marine Surface Water Standards <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
					Mayport Turning Basin	St. Johns River	For Protection of Aquatic Life: Acute/Chronic	For Protection of Human Health			
<b>Volatiles (µg/l)</b>											
No analytes detected											
<b>Semivolatiles (µg/l)</b>											
No analytes detected											
<b>Pesticides/PCBs (µg/l)</b>											
No analytes detected											
<b>Inorganics (mg/l)</b>											
Antimony	2/6	10.9 to 10.9	14.2 to 21.4	17.8	ND	ND	<sup>6</sup> 1,500/500	45,000	4,300	No	A, H, M
Arsenic	6/6	NR	27.4 to 50.6	36.5	ND	ND	<sup>6</sup> 69/36	0.0175	<sup>10</sup> 50	Yes	
Barium	6/6	NR	8.9 to 33.8	21.3	12.2	15.2	NA/NA	NA	NA	Yes	
Cadmium	2/6	2.9 to 2.9	2.2 to 5.3	3.8	11.6	12.2	43/9.3	NA	9.3	No	B
Chromium	3/6	2.1 to 2.1	3.2 to 12.2	7.3	ND	ND	<sup>11</sup> 1,100/50	<sup>12</sup> 3,433,000	<sup>11</sup> 50	No	A, H, M
Cobalt	1/6	3.6 to 3.6	4 to 4	4	ND	ND	NA/NA	NA	NA	Yes	
Lead	3/6	1.4 to 13	13.9 to 29.3	21.8	ND	ND	220/8.5	NA	5.6	Yes	
Nickel	5/6	3.8	5.3 to 31.6	14.4	ND	ND	75/8.3	100	8.3	Yes	
Tin	3/6	26.4 to 26.4	28.4 to 33.5	30.2	17	19.8	NA/NA	NA	NA	Yes	
Vanadium	6/6	NR	11.2 to 25.7	16.9	ND	3.6	NA/NA	NA	NA	Yes	
Zinc	1/6	4.8 to 44.3	94 to 94	94	4.2	5.8	95/86	NA	86	Yes	
Cyanide	2/6	1.8 to 1.8	1.4 to 2.4	1.9	0.96	5	1/NA	NA	1	No	B

See notes on next page.

See notes on next page.

**Table 4-2 (Continued)**  
**Chemicals or Potential Concern Detected in Surface Water Samples at SWMU 50, April 1992**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>(*)</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>		Ambient Water Quality Criteria <sup>5</sup>		Class III Marine Surface Water Standards <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
					Mayport Turning Basin	St. Johns River	For Protection of Aquatic Life: Acute/Chronic	For Protection of Human Health			

<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).

<sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit (CRL) and contract required detection limit (CRDL) is used as a surrogate.

<sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified as "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).

<sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.

<sup>5</sup> Values are taken from USEPA Water Quality Criteria Summary, Office of Science and Technology, Health and Ecological Criteria Division, Washington, D.C., May 1, 1991.

<sup>6</sup> Values are taken from Surface Water Quality Standards, Chapter 62-302, Florida Administrative Code, amended January 1995.

<sup>7</sup> Analytes were included or excluded from the risk assessment for the following reasons:

B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations  
A = the maximum detected concentration did not exceed the Ambient Water Quality Criteria for the Protection of Marine Aquatic organisms and the analyte will not be considered further.

H = the maximum detected concentration did not exceed the Ambient Water Quality Criteria for the Protection of Human Health from the ingestion of fish and the analyte will not be considered further.

M = the maximum detected concentration did not exceed the Marine Surface Water (Class III) Surface Water Quality Standards and the analyte will not be considered further.

<sup>8</sup> Proposed criteria.

<sup>9</sup> The value is based on trivalent form of arsenic

<sup>10</sup> The value is based on the total concentration of arsenic.

<sup>11</sup> The value is based on chromium hexavalent form.

<sup>12</sup> The value is based on chromium trivalent form.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 50SW11; 50SW21; 50SW31; 50SW41; 50SW51; 50SW61

Duplicate sample locations include: 50SW31DUP

Background sample locations include: Turning Basin - MPT-B-SW10; MPT-B-SW11; MPT-B-SW12  
St. Johns River - MPT-B-SW113; MPT-B-SW14; MPT-B-SW15

Duplicate background sample locations include: Turning Basin - MPT-B-SW12DUP

CPC = chemicals of potential concern. NR = not reported; analyte detected in each sample;  
µg/l = micrograms per kilograms. reporting limits are same as range of detected concentrations.

PCBs = polychlorinated biphenyls. ND = not detected in any background samples.

mg/l = milligrams per kilograms. NA = not available.

Sediment Samples. Tables 4-3 and 4-4 summarize the validated analytical results for SVOCs and inorganic target analytes detected in sediment samples (saturated) paired with surface water samples collected during 1992 at SWMU 50. Tables 4-5 and 4-6 summarize the validated analytical results for SVOCs and inorganic target analytes detected in sediment samples (unsaturated) collected during 1992 at SWMU 50. Table 4-7 summarizes the validated analytical results for SVOCs, pesticides, and inorganic target analytes detected in sediment samples collected at SWMU 50.

A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 4-7. The target analytes detected in the environmental samples were compared to background sediment samples collected from Mayport Turning Basin and the St. Johns River (ABB-ES, 1995b), and bench mark values from *The Potential for Biological Effects of Sediment-sorbed Contaminants Tested in the National Status and Trends Program*, NOAA (Long and others, 1993), and *Approach to the Assessment of Sediment Quality in Florida Coastal Waters* (MacDonald, 1994). Values are also shown in Table 4-7 for cleanup goals for Military Sites in Florida (FDEP, 1995); however, these values do not represent potential adverse effects to ecological receptors and were not used to determine whether the analyte was a CPC.

Target analytes detected in the sediment samples that were paired with the surface water samples consist of 8 SVOCs (bis(2-ethylhexyl)phthalate, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene) (Table 4-3) and 14 inorganics (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, vanadium, zinc, and cyanide). Pesticides and PCBs were not detected in these sediment samples (Table 4-4).

Target analytes detected in the sediment samples from dry sections of the western and eastern dredge material holding areas consist of 10 SVOCs (fluoranthene, pyrene, butylbenzylphthalate, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene) (Table 4-5) and 15 inorganics (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, vanadium, zinc, and cyanide) (Table 4-6).

4.4 PRELIMINARY RISK EVALUATION. The following presents a preliminary risk evaluation of surface water and sediment samples collected at SWMU 50.

Surface Water. SVOCs, pesticides, and PCBs were not detected in the surface water samples. Chemicals of potential concern consist of eight inorganic analytes (arsenic, barium, cobalt, lead, nickel, tin, vanadium, and zinc) detected in the surface water samples at concentrations exceeding either background screening values (surface water samples collected from Mayport Turning Basin and the St. Johns River) or bench mark values.

Arsenic was detected in each of the surface water samples and duplicate, but was not detected in the background surface water samples. Arsenic was detected in three surface water samples at concentrations that exceed the AWQC chronic criteria (36 µg/l) for protection of aquatic life and the Class III marine

**Groups I and II RFA SV Report**  
**U.S. Naval Station**  
**Mayport, Florida**

**Notes:** Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C. Suffix "n" on the Sample No. indicates a duplicate sample to the corresponding environmental sample.

Conc. = concentration.  
Qual. = qualifier.  
μg/kg = milligrams per kilogram.  
-- = analyte not detected.  
"J" = estimated value.

**Table 4-4**  
**Inorganic Analytes Detected in Sediment Samples (Saturated) at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Mayport, Florida															
Analyte Batch No.: Sample Matrix: Sample Location Sample No.: Date Sampled:	21541 Sediment		21541 Sediment		21541 Sediment		21541 Sediment		21541 Sediment		21541 Sediment		21541 Sediment		
	CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
7440-36-0		Antimony	mg/kg	6.4	J	--		--		--		--		--	
7440-38-2		Arsenic	mg/kg	15.6		16.8		15.3		0.74	J	16.4		15	
7440-39-3		Barium	mg/kg	23.4	J	21.9	J	24.7	J	2.6	J	26.8	J	28.8	J
7440-41-7		Beryllium	mg/kg	1.3	J	1.3	J	1.4	J	--		1.4	J	1.6	J
7440-43-9		Cadmium	mg/kg	1.7	J	--		--		--		--		--	
7440-47-3		Chromium	mg/kg	50.8		36.4		47.8		2	J	42.6		46.3	
7440-48-4		Cobalt	mg/kg	5.9	J	4.6	J	4.9	J	--		6.5	J	6.7	J
7440-50-8		Copper	mg/kg	18.8		38.2		26.1		1.9	J	21.3		26.1	
7440-92-1		Lead	mg/kg	18.7		25.5		21.6		1.5		31.4		34.2	
7440-02-0		Nickel	mg/kg	16.3	J	11.8	J	14.1	J	--		14.1	J	12.9	J
7440-49-2		Selenium	mg/kg	1.2	J	--		--		--		0.72	J	0.81	J
7440-62-2		Vanadium	mg/kg	47.4		38.5		46.4		1.1	J	49.9		51.3	
7440-66-6		Zinc	mg/kg	74.8		78.3		77.8		6.4		79.9		90.1	
5955-70-0		Cyanide	mg/kg	0.52	J	--		--		1.2	J	--		--	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix "D" on the Sample No. indicates a duplicate sample to the corresponding environmental sample.

Conc. = concentration.  
Qual. = qualifier.  
-- = analyte not detected.  
mg/kg = milligrams per kilogram.  
"J" = estimated value.



**Table 4-5**  
**Organic Analytes Detected in Sediment Samples (Unsaturated) at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:		21541		21541		21541		21541		21541		
Sample Matrix:		Soil		Soil		Soil		Soil		Soil		
Sample Location:		MPT-50-SD07		MPT-50-SD07		MPT-50-SD07		MPT-50-SD08		MPT-50-SD08		
Sample No.:		MPT506SS01		MPT50BS01		MPT50BS01		MPT50SS02		MPT50BS02		
Date Sampled:		04/23/92		04/23/92		04/23/92		04/23/92		04/23/92		
Sample Depth (ft bls)		0 to 0.5		3 to 4		3 to 4		0 to 0.5		3 to 4		
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
206-44-0	Fluoranthene	µg/kg	--		--		--		--		--	
129-00-0	Pyrene	µg/kg	--		--		--		--		--	
85-68-7	Butylbenzylphthalate	µg/kg	--		--		--		--		--	
56-55-3	Benzo[a]anthracene	µg/kg	--		--		--		--		--	
218-01-9	Chrysene	µg/kg	--		--		--		--		--	
117-81-7	bis(2-Ethylhexyl) phthalate	µg/kg	51	J	--		--		--		--	
117-84-0	Di-n-Octyl phthalate	µg/kg	--		--		--		--		--	
205-99-2	Benzo[b]Fluoranthene	µg/kg	--		--		--		--		--	
207-08-09	Benzo[k]Fluoranthene	µg/kg	--		--		--		--		--	
50-32-8	Benzo[a]Pyrene	µg/kg	--		--		--		--		--	
See notes at end of table.												

**Table 4-5 (Continued)**  
**Organic Analytes Detected in Sediment Samples (Unsaturated) at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.: Sample Matrix: Sample Location: Sample No.: Date Sampled: Sample Depth (ft bis):	Common Name	Units	21541 Soil		21541 Soil		21541 Soil		21541 Soil	
			Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
CAS RN										
206-44-0	Fluoranthene	µg/kg	--		130	J	--		--	
129-00-0	Pyrene	µg/kg	--		130	J	--		--	
85-68-7	Butylbenzylphthalate	µg/kg	--		--		8,530	J	--	
56-55-3	Benzo[a]anthracene	µg/kg	--		100	J	--		--	J
218-01-9	Chrysene	µg/kg	--		120	J	--		--	
117-81-7	bis(2-Ethylhexyl) phthalate	µg/kg	65	J	760	J	15,300	J	--	
117-84-0	Di-n-octyl phthalate	µg/kg	--		--		90	J	--	
205-99-2	Benzo[b]fluoranthene	µg/kg	--		100	J	--		46	J
207-08-09	Benzo[k]fluoranthene	µg/kg	--		93	J	--		--	
50-32-8	Benzo[a]pyrene	µg/kg	--		71	J	--		--	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

SWMU = solid waste management unit.

ft bis = feet below land surface.

Conc. = concentration.

Qual. = qualifier.

µg/l = micrograms per liter.

-- = analyte not detected.

"J" = estimated value.

<p><b>Table 4-6</b> <b>Inorganic Analytes Detected in the Sediment Samples (Unsaturated) at SWMU 50</b></p> <p>Groups I and II RFA SV Report U.S. Naval Station Mayport, Florida</p>											
Analyte Batch No.:		21541		21541		21541		21541		21541	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-50-SD07		MPT-50-SD07		MPT-50-SD07		MPT-50-SD08		MPT-50-SD08	
Sample No.:		MPT50SS01		MPT50BS01		MPT50BS02		MPT50SS02		MPT50BS02	
Date Sampled:		04/23/92		04/23/92		04/23/92		04/23/92		04/23/92	
Sample Depth (ft bls)		0 to 0.5		3 to 4		0 to 0.5		3 to 4		3 to 4	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
7440-36-0	Antimony	mg/kg	--		2.8	J	--		3.2	J	J
7440-38-2	Arsenic	mg/kg	0.7	J	0.85	J	0.73	J	0.6	J	J
7440-39-3	Barium	mg/kg	2	J	2.6	J	2.7	J	2.2	J	J
7440-41-7	Beryllium	mg/kg	--		--		--		--		
7440-43-9	Cadmium	mg/kg	--		--		--		--		
7440-47-3	Chromium	mg/kg	2	J	1.8	J	3.3		2.6	J	J
7440-48-4	Cobalt	mg/kg	--		--		1.4	J	--		
7440-50-8	Copper	mg/kg	4.2	J	3.1	J	2.1	J	1.9	J	J
7440-92-1	Lead	mg/kg	0.58	J	4.2		1.4		3		
7440-02-0	Nickel	mg/kg	8.6	J	3.1	J	2	J	1.3	J	J
7440-49-2	Selenium	mg/kg	--		--		--		--		
7440-22-4	Silver	mg/kg	--		--		--		--		
7440-62-2	Vanadium	mg/kg	0.96	J	0.83	J	1.9	J	1.2	J	J
7440-66-6	Zinc	mg/kg	7.5		7.7		11.7		7.9		
5955-70-0	Cyanide	mg/kg	--		--		--		--		
See notes at end of table.											

**Table 4-6 (Continued)**  
**Inorganic Analytes Detected in Sediment Samples (Unsaturated) at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:		21541		21541		21541		21541		21541	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-50-SD09		MPT-50-SD09		MPT-50-SD09		MPT-50-SD10		MPT-50-SD10	
Sample No.:		MPT50SS03		MPT50SS03		MPT50BS03		MPT50SS04		MPT50BS04	
Date Sampled:		04/23/92		04/23/92		04/23/92		04/23/92		04/23/92	
Sample Depth (ft bls)		0 to 0.5		3 to 4		3 to 4		0 to 0.5		3 to 4	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
7440-36-0	Antimony	mg/kg	--		--		--		--		
7440-38-2	Arsenic	mg/kg	1.5	J	2.5		5.7		6.7		
7440-39-3	Barium	mg/kg	2.2	J	3.1	J	16.9	J	12.4	J	J
7440-41-7	Beryllium	mg/kg	--		--		0.82	J	0.59	J	J
7440-43-9	Cadmium	mg/kg	--		--		--		1.6		
7440-47-3	Chromium	mg/kg	3		6.3		25.4		18.6		
7440-48-4	Cobalt	mg/kg	--		--		3.7	J	2.5	J	
7440-50-8	Copper	mg/kg	4.7	J	2.5	J	9.7		11.1		
7440-92-1	Lead	mg/kg	1.7		2.7		13.4		13.5		
7440-02-0	Nickel	mg/kg	26.1	J	3.3	J	5.8	J	7.1	J	
7440-49-2	Selenium	mg/kg	--		--		--		--		
7440-22-4	Silver	mg/kg	--		--		--		--		
7440-62-2	Vanadium	mg/kg	1.4	J	4.5	J	28.8		18.1		
7440-66-6	Zinc	mg/kg	11.3		8		43.1		44.2		
5955-70-0	Cyanide	mg/kg	--		--		--		--		

See notes at end of table.

**Table 4-6 (Continued)**  
**Inorganic Analytes Detected in Sediment Samples (Unsaturated) at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:		21541		21541		21541		21541		21541	
Sample Matrix:		Soil		Soil		Soil		Soil		Soil	
Sample Location:		MPT-50-SD11		MPT-50-SD11		MPT-50-SD11		MPT-50-SD12		MPT-50-SD12	
Sample No.:		MPT50SS05		MPT50SS05		MPT50BS05		MPT50SS06		MPT50BS06	
Date Sampled:		04/23/92		04/23/92		04/23/92		04/23/92		04/23/92	
Sample Depth (ft bis):		0 to 0.5		3 to 4		3 to 4		0 to 0.5		3 to 4	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Qual.
7440-36-0	Antimony	mg/kg	--		--		3.2	J	36.2		
7440-38-2	Arsenic	mg/kg	13.8		15.5		1.9	J	2.7		
7440-39-3	Barium	mg/kg	29.2	J	24.1	J	9.5	J	6.9	J	
7440-41-7	Beryllium	mg/kg	1.5		1.4	J	--		--		
7440-49-9	Cadmium	mg/kg	1	J	1.7		--		--		
7440-47-3	Chromium	mg/kg	43.2		40.4		6.4		6.1		
7440-48-4	Cobalt	mg/kg	6.5	J	6.3	J	1.2	J	1.4	J	
7440-50-8	Copper	mg/kg	23.1		18.7		23		13.4		
7440-92-1	Lead	mg/kg	41.4		49.4		28.3		11.9		
7440-02-0	Nickel	mg/kg	13.5		11	J	1.8	J	3.4	J	
7440-49-2	Selenium	mg/kg	0.77	J	0.7	J	--		--		
7440-22-4	Silver	mg/kg	0.54	J	--		--		--		
7440-62-2	Vanadium	mg/kg	49.2		49.2		3.3	J	5.6	J	
7440-66-6	Zinc	mg/kg	84.5		78.6		38.1		23.3		
5955-70-0	Cyanide	mg/kg	--		--		9.4		1.4	J	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

SWMU = solid waste management unit.

mg/kg = milligrams per kilogram.

ft bis = feet below land surface.

-- = analyte not detected.

Conc. = concentration.

"J" = estimated value.

Qual. = qualifier.

**Table 4-7**  
**Chemicals of Potential Concern in Sediment Samples Collected at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Mayport, Florida													
Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>		Long and Others		MacDonald <sup>6</sup>		Cleanup goals for Military Sites in Florida <sup>9</sup>	Analyte CPC (Yes/No)	Reas-son <sup>10</sup>
					Mayport Turning Basin	St. Johns River	ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	PEL <sup>8</sup>			
<b>Volatiles (µg/kg)</b>													
Not analyzed													
<b>Semivolatiles (µg/kg)</b>													
Benzo[a]anthracene	3/18	350 to 1,000	74 to 190	121	ND	ND	261	1,600	74.8	693	4,900	Yes	
Benzo[a]pyrene	2/18	350 to 1,000	71 to 150	111	ND	ND	430	1,600	88.8	763	500	Yes	
Benzo[b]fluoranthene	3/18	350 to 1,000	46 to 180	109	ND	ND	NA	NA	NA	NA	4,900	Yes	
Benzo[k]fluoranthene	2/18	350 to 1,000	93 to 140	117	ND	ND	NA	NA	NA	NA	47,000	Yes	
Butylbenzylphthalate	1/18	350 to 1,000	8,530	8,530	148	ND	NA	NA	NA	NA	300,000,000	Yes	
Chrysene	5/18	350 to 1,000	52 to 230	123	ND	ND	384	2,800	108	846	490,000	Yes	
Di-n-Octyl-phthalate	1/18	350 to 1,000	90	90	ND	ND	NA	NA	NA	NA	32,000,000	Yes	
bis(2-Ethylhexyl)-phthalate	8/18	350 to 890	51 to 15,300	2,123	ND	ND	NA	NA	182	2,647	100,000	Yes	
Fluoranthene	5/18	350 to 690	120 to 515	217	97	ND	600	5,100	21.23	144	44,000,000	Yes	
Pyrene	5/18	350 to 690	130 to 450	240	ND	ND	465	2,600	153	1,398	37,000,000	Yes	
<b>Pesticides/PCBs (µg/kg)</b>													
No analytes detected													
See notes at end of table.													

**Table 4-7 (Continued)**  
**Chemicals of Potential Concern Sediment Samples Collected at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>			Long and Others		MacDonald <sup>5</sup>		Cleanup goals for Military Sites in Florida <sup>6</sup>	Analyte CPC (Yes/No)	Reason <sup>10</sup>
					Mayport Turning Basin	St. Johns River	ER-L <sup>5</sup>	ER-M <sup>6</sup>	NOEL <sup>7</sup>	PEL <sup>8</sup>				
Inorganics (mg/kg)														
Antimony	5/18	2.3 to 6.7	2.8 to 36.2	10.4	ND	ND	NA	NA	NA	NA	210	Yes		
Arsenic	18/18	NR	0.6 to 16.4	7.2	18	1.22	8.2	70	7.24	41.6	3.0	No	No	B
Barium	18/18	NR	2 to 29.2	13.7	33.8	6.4	NA	NA	NA	NA	74,000	No	No	B
Beryllium	9/18	0.12 to 0.29	0.59 to 1.6	1.3	1.5	0.12	NA	NA	NA	NA	0.2	Yes		
Cadmium	4/18	0.62 to 1.8	1 to 1.7	1.5	ND	ND	1.2	9.6	0.676	4.21	600	Yes		
Chromium	18/18	NR	1.8 to 46.3	21.4	53	3.4	81	370	52.3	160	220	No	No	L, M, N, P
Cobalt	12/18	0.75 to 0.92	1.2 to 6.7	4.4	8.6	ND	NA	NA	NA	NA	110,000	No	No	B
Copper	18/18	NR	1.9 to 32.2	13.2	130.2	ND	34	270	18.7	180	72,000	No	No	B
Lead	18/18	NR	0.58 to 49.4	17.2	26	2.2	46.7	218	30.2	112	1,000	Yes	Yes	
Nickel	17/18	0.93 to 0.93	1.3 to 26.1	9.2	44.6	ND	20.9	51.6	15.9	42.8	11,000	No	No	B
Selenium	5/18	0.25 to 0.75	0.7 to 1.2	0.84	ND	ND	NA	NA	NA	NA	9,900	Yes		
Silver	1/18	0.36 to 1.1	0.54	0.54	ND	ND	1	3.7	0.733	1.7	8,000	No	No	L, M, N, P
Vanadium	18/18	NR	0.83 to 51.3	22.6	56.2	2.2	NA	NA	NA	NA	4,800	No	No	B
Zinc	18/18	NR	6.4 to 90.1	43	139.2	3.6	150	410	124	271	550,000	No	No	B
Cyanide	4/18	0.19 to 0.55	0.52 to 9.4	3.1	ND	ND	NA	NA	NA	NA	40,000	Yes	Yes	

See notes on next page.

See notes on next page.

**Table 4-7 (Continued)**  
**Chemicals of Potential Concern Sediment Samples Collected at SWMU 50**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Notes from previous pages.

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U," or "UJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> Effects range-low (ER-L) value represents a concentration intended to estimate conditions in which effects would be rarely observed. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and others, National Oceanic and Atmospheric Administration, 1993.
- <sup>6</sup> Effects range-median (ER-M) represents the concentration where effects would occasionally occur. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and others, National Oceanic and Atmospheric Administration, 1993.
- <sup>7</sup> Threshold Effects Level (TEL) is a concentration at which no effects have been observed in any test species or biological community. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters," MacDonald, November, 1994.
- <sup>8</sup> Probable Effects Level (PEL) is the lower concentration limits at which adverse effects may first be observed. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters," MacDonald, November, 1994.
- <sup>9</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the Industrial Worker based on a cancer risk and  $10^{-6}$  an adjusted hazard quotient of 1.
- <sup>10</sup> Analytes were excluded from the risk assessment for the following reasons:  
B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations listed below (for inorganic compounds only).  
L = the maximum detected concentration did not exceed the Effects Range-Low (ER-L).  
M = the maximum detected concentration did not exceed the Effects Range-Medium (ER-M).  
N = the maximum detected concentration did not exceed the Threshold Effects Level (TEL).  
P = the maximum detected concentration did not exceed the Probable Effects Level (PEL)

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 50SD01; 50SD02; 50SD03; 50SD04; 50SD05; 50SD06; 50SS01; 50SS02; 50SS03; 50SS04; 50SS05; 50BS04; 50BS05; 50SS06; and 50BS06.

Duplicate sample locations include: 50SD02DUP.  
Background sample locations include: Turning Basin - MPT-B-SD10; MPT-B-SD11; MPT-B-SD12.  
St. Johns River - MPT-B-SD13; MPT-B-SD14; MPT-B-SD15

Duplicate background sample locations include: Turning Basin - MPT-B-SD12DUP

CPC = chemicals of potential concern.  
 $\mu\text{g/kg}$  = micrograms per kilograms.

NA = not available.  
PCBs = polychlorinated biphenyls.  
 $\text{mg/kg}$  = milligrams per kilograms.

ND = not detected in any background samples.



surface water standard (50  $\mu\text{g}/\text{l}$ ). The AWQC acute criteria (69  $\mu\text{g}/\text{l}$ ) for protection of aquatic life was not exceeded.

Barium was detected in each of the surface water samples and duplicate, and was detected in both of the background surface water samples. The highest of the background screening values for barium was detected in the Mayport Turning Basin sample (15.2  $\mu\text{g}/\text{l}$ ). Four of the surface water samples contained barium at concentrations that exceeded this background screening value. Currently, there are no AWQC or Class III marine bench mark values established for barium.

Cobalt was detected as a single occurrence, and was not detected in the background samples. Currently, there are no AWQC or Class III marine bench mark values established for cobalt.

Lead was detected in the three samples and duplicate from the western dredge material holding area and not in the eastern dredge material holding area. Lead was not detected in the background sediment samples. Lead was detected in three surface water samples and duplicate at concentrations that exceed the AWQC chronic criteria (8.5  $\mu\text{g}/\text{l}$ ) for protection of aquatic life and the Class III marine surface water standard (5.6  $\mu\text{g}/\text{l}$ ). The AWQC acute criteria (220  $\mu\text{g}/\text{l}$ ) for protection of aquatic life was not exceeded.

Nickel was detected in four of the surface water samples and the duplicate. The corresponding sample to the duplicate did not contain detectable concentrations of nickel. Nickel was not detected in the background samples. Nickel was detected in the surface water samples and duplicate at concentrations that exceed the AWQC chronic criteria (8.3  $\mu\text{g}/\text{l}$ ) for protection of aquatic life and the Class III marine surface water standard (8.3  $\mu\text{g}/\text{l}$ ). The AWQC acute criteria (75  $\mu\text{g}/\text{l}$ ) for protection of aquatic life was not exceeded.

Tin was detected in three of the surface water samples. The highest sample concentration was 19.8  $\mu\text{g}/\text{l}$  and exceeded this background screening value.

The detected concentrations of tin exceeded this background screening value. Currently, there are no AWQC or Class III marine bench mark values established for tin.

Vanadium was detected in each of the surface water samples and in the background samples from Mayport Turning Basin (background screening value 3.6  $\mu\text{g}/\text{l}$ ). Each of the samples contained vanadium at concentrations that exceeded the background screening value. Currently, there are no AWQC or Class III marine bench mark values established for vanadium.

Zinc was detected as a single occurrence in a surface water sample collected from the eastern dredge material holding area. The highest of the background screening values for zinc was detected in the Mayport Turning Basin sample (5.8  $\mu\text{g}/\text{l}$ ). The detected concentrations of zinc exceeded this background screening value. Zinc was detected in the surface water sample at a concentration that exceeded the AWQC chronic criteria (86  $\mu\text{g}/\text{l}$ ) and approached the acute criteria (95  $\mu\text{g}/\text{l}$ ) for protection of aquatic life. The detected concentration of zinc (94  $\mu\text{g}/\text{l}$ ) also exceeded the Class III Marine surface water standard (86  $\mu\text{g}/\text{l}$ ).

Sediment. Pesticides and PCBs were not detected in the sediment samples. Chemicals of potential concern consist of 10 SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, butylbenzylphthalate, chrysene, di-n-octylphthalate, bis(2-ethylhexyl)phthalate, fluoranthene, and pyrene) and six inorganic analytes (antimony, beryllium, cadmium, lead, selenium, and cyanide). The

inorganic analytes were detected in the surface water samples and exceeded either background screening values (surface water samples collected from Mayport Turning Basin and the St. Johns River) or bench mark values.

Because the dredge material holding areas are at capacity and are not likely to be used unless material is removed, a comparison of the CPCs with bench mark values (residential exposure and industrial worker) for FDEP cleanup goals for soil is also made in this section. If an FDEP cleanup goal is not available, the default will be to the proposed Superfund SSL bench mark values. The bench mark values for the residential FDEP cleanup goals and proposed Superfund SSLs are not included in Table 4-7.

Benzo(a)anthracene was detected in three sediment samples and was not detected in the background sediment samples. One of the samples contained benzo(a)anthracene at a concentration (190  $\mu\text{g/kg}$ ) that exceeded the MacDonald TEL (74.8  $\mu\text{g/kg}$ ), but not the PEL (693  $\mu\text{g/kg}$ ). The bench mark values for the ER-L (261  $\mu\text{g/kg}$ ) and ER-M (1,600  $\mu\text{g/kg}$ ) were not exceeded. The detected concentrations of benzo(a)anthracene were below the residential (1,400  $\mu\text{g/kg}$ ) and industrial worker (4,900  $\mu\text{g/kg}$ ) FDEP cleanup goal for soil.

Benzo(a)pyrene was detected in two sediment samples, and was not detected in the background sediment samples. One sample contained benzo(a)pyrene at a concentration (150  $\mu\text{g/kg}$ ) that exceeded the TEL (88.8  $\mu\text{g/kg}$ ) but not the PEL or ER-L and ER-M bench mark values. The detected concentration of benzo(a)pyrene was above the residential (140  $\mu\text{g/kg}$ ) clean up criteria and below the industrial worker criteria (500  $\mu\text{g/kg}$ ).

Benzo(b)fluoranthene was detected in three sediment samples, and was not detected in the background sediment samples. Currently there are no bench mark values established for benzo(b)fluoranthene by Long and others (1993) and MacDonald (1994). The detected concentrations of benzo(b)fluoranthene were below the residential (1,400  $\mu\text{g/kg}$ ) and industrial worker (5,010  $\mu\text{g/kg}$ ) FDEP cleanup goal in soil.

Benzo(k)fluoranthene was detected in two sediment samples, and was not detected in the background sediment samples. Currently there are no bench mark values established for benzo(k)fluoranthene by Long and others (1993) and MacDonald (1994). The detected concentrations of benzo(k)fluoranthene were below the residential (1,400  $\mu\text{g/kg}$ ) and industrial worker (4,900  $\mu\text{g/kg}$ ) FDEP cleanup goal in soil.

Butylbenzylphthalate was detected as a single occurrence (8,530  $\mu\text{g/kg}$ ), and in the background sediment samples from the Mayport Turning Basin. Currently there are no bench mark values established for butylbenzylphthalate by Long and others (1993) or MacDonald (1994). The detected concentrations of butylbenzylphthalate were below the residential (15,000,000  $\mu\text{g/kg}$ ) and industrial worker (300,000,000  $\mu\text{g/kg}$ ) FDEP cleanup goal for soil.

Chrysene was detected in five sediment samples and was not detected in the background sediment samples. One of the samples contained chrysene at a concentration (230  $\mu\text{g/kg}$ ) that exceeded the TEL (108  $\mu\text{g/kg}$ ), but not the PEL (846  $\mu\text{g/kg}$ ). The bench mark values for the ER-L (384  $\mu\text{g/kg}$ ) and ER-M (2,800  $\mu\text{g/kg}$ ) were not exceeded. The detected concentrations of chrysene were below the residential (14,000  $\mu\text{g/kg}$ ) and industrial worker (490,000  $\mu\text{g/kg}$ ) FDEP cleanup goal in soil.

Di-n-octylphthalate was detected as a single occurrence (90  $\mu\text{g/kg}$ ), and was not detected in the background sediment samples. Currently there are no bench mark values established for di-n-octylphthalate by Long and others (1993) and MacDonald (1994).

The detected concentration of di-n-octylphthalate was less than the residential (1,500,000 µg/kg) and industrial worker (32,000,000 µg/kg) FDEP cleanup goal in soil.

Bis(2-ethylhexyl)phthalate was detected in eight of the sediment samples and was not detected in the background sample. Four of the 18 sediment samples contained bis(2-ethylhexyl)phthalate at concentrations that exceed the TEL (182 µg/kg). The detected concentration of bis(2-ethylhexyl)phthalate was less than the residential (45,000 µg/kg) and industrial worker (100,000 µg/kg) FDEP cleanup goal in soil.

Fluoranthene was detected in five sediment samples and in the background sediment samples from the Mayport Turning Basin. One of the samples contained fluoranthene at a concentration (530 µg/kg) that exceeded the TEL (21.23 µg/kg), and PEL (144 µg/kg) values. The benchmark values for the ER-L (600 µg/kg) and ER-M (5,100 µg/kg) were not exceeded. The detected concentrations of fluoranthene were below the residential (800,000 µg/kg) and industrial worker (44,000,000 µg/kg) FDEP cleanup goal in soil.

Pyrene was detected in five sediment samples and not in the background sediment samples. Four out of five samples contained pyrene at a concentration above the TEL (153 µg/kg) but not the PEL (1,398 µg/kg). The benchmark values for the ER-L (465 µg/kg) and ER-M (2,600 µg/kg) were not exceeded. The detected concentrations of pyrene were below the residential (2,200,000 µg/kg) and industrial worker (37,000,000 µg/kg) FDEP cleanup goal in soil.

Antimony was detected in five of the sediment samples and was not detected in the background sediment samples. Currently, there are no benchmark values established for antimony by Long and others (1993) or MacDonald (1994). A single sample contained antimony at a concentration (36.2 mg/kg) that exceeded the residential (26 mg/kg) FDEP cleanup goal but less than the industrial worker (210 mg/kg) cleanup goal in soil.

Beryllium was detected in nine of the sediment samples and in both the St. Johns River and Mayport Turning Basin background samples. The highest of the background screening values (1.5 mg/kg) was detected in the sample from the St. Johns River. One of the samples contained beryllium at the concentration detected in the background sample and one sample contained beryllium at a concentration that exceeded this value (1.6 mg/kg). Currently, there are no benchmark values established for beryllium by Long and others (1993) or MacDonald (1994). Each of the environmental samples contained beryllium at concentrations that exceed residential (0.1 mg/kg) and industrial worker (0.2 mg/kg) cleanup goals in soil.

Cadmium was detected in four of the sediment samples, and was not detected in the background sediment samples. Each of the detected concentrations of cadmium exceeded the TEL (0.676 mg/kg) and three of the samples exceeded the ER-L (1.2 mg/kg). The detected concentrations of cadmium did not exceed the PEL (4.21 mg/kg) or the ER-L (9.6 mg/kg). The detected concentrations of cadmium were below the residential (37 mg/kg) and industrial worker (600 mg/kg) FDEP cleanup goal in soil.

Lead was detected in 18 of the sediment samples and was detected in both of the background sediment samples. The highest of the background screening values (26 mg/kg) was detected in the sample from the St. Johns River. Six of the detected concentrations of lead exceeded the background screening value. Four of the samples contained lead at concentrations that exceeded the TEL (30.2 mg/kg), and one of the samples exceeded the ER-L (46.7 mg/kg). The detected concentrations of lead did not exceed the PEL (112 mg/kg) or the ER-L (218 mg/kg). The detected concentrations of lead were below the residential (500 mg/kg) and industrial worker (1,000 mg/kg) FDEP cleanup goal in soil.

Selenium was detected in five of the sediment samples and was not detected in the background sediment samples. Currently there are no bench mark values established for selenium by Long and others (1993) or MacDonald (1994). Each of the environmental samples contained selenium at concentrations less than residential (390 mg/kg) and industrial worker (8,000 mg/kg) cleanup goals in soil.

Cyanide was detected in four of the sediment samples and was not detected in the background sediment samples. Currently, there are no bench mark values established for cyanide by Long and others (1993) and MacDonald (1994). Each of the environmental samples contained cyanide at concentrations less than residential (1,600 mg/kg) and industrial worker (40,000 mg/kg) cleanup goals in soil.

#### 4.5 CONCLUSIONS AND RECOMMENDATIONS.

##### 4.5.1 Conclusions

Surface Water. SVOCs, pesticides, and PCBs were not detected in the surface water samples. The surface water samples were not analyzed for VOCs. Twelve inorganic analytes were detected including antimony, arsenic, barium, cadmium, chromium, cobalt, lead, nickel, tin, vanadium, zinc, and cyanide (Table 4-1).

Chemicals of potential concern consist of eight inorganic analytes (arsenic, barium, cobalt, lead, nickel, tin, vanadium, and zinc) that were detected in the surface water samples and exceeded either background screening values (surface water samples collected from Mayport Turning Basin and the St. Johns River) or bench mark values (Table 4-2).

The surface water in the western and eastern dredge material holding areas is an ephemeral feature that is present during dredging activities and varies depending on the frequency and amount of rainfall. Target analytes and concentrations present in the surface water are expected to have considerable variation because of variations in the type of water placed in the holding areas (sea water or brackish water and rainwater).

Because the dredge material holding areas do not maintain water for a sufficient duration, use of this area for harvesting of aquatic species is not viable; however, it is a viable area for foraging by birds. Surface water in the dredge material holding areas is discharged to adjacent marsh areas. The marsh areas are a Class III marine environment.

Sediment. Pesticides and PCBs were not detected in the sediment samples. Target analytes detected in the sediment samples consist of 10 SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, butylbenzylphthalate, chrysene, di-n-octylphthalate, bis(2-ethylhexyl)phthalate, fluoranthene, and pyrene) and 15 inorganics (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, vanadium, zinc and cyanide) (Tables 4-3 through 4-6).

Chemicals of potential concern consist of the ten SVOCs and six inorganics (antimony, beryllium, cadmium, lead, selenium, and cyanide) (Table 4-7).

Only two of the SVOCs (butylbenzylphthalate and fluoranthene) were detected in background sediment samples. Organic analytes were not eliminated as a chemical of potential concern because of detection in the background samples. Two of the

inorganic target analytes that are chemicals of potential concern (beryllium and lead) were detected at concentrations that exceeded those detected in background sediment samples. The other inorganic analytes (antimony, cadmium, selenium, and cyanide) that are CPCs were not detected in the background sediment samples.

Because bench mark values have not been established by Long and others (1993) and MacDonald (1994) for benzo(k)fluoranthene, butylbenzylphthalate, di-n-octylphthalate, antimony, beryllium, selenium, and cyanide they were considered CPCs. Target analytes that exceeded the TEL were benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene. Target analytes that exceeded the ER-L and TEL were fluoranthene, cadmium, and lead. None of the target analytes exceeded values for the ER-M or PEL.

Because the dredge material holding areas are at capacity and are not likely to be used unless material is removed, a comparison was made between the CPCs and bench mark values (residential and industrial worker exposure) for FDEP cleanup goals for soil. Concentrations of benzo(a)pyrene and antimony exceeded FDEP residential soil cleanup goals and concentrations of beryllium exceeded residential and industrial worker soil cleanup goals.

4.5.2 Recommendations Based on the analytical results, ecological diversity measurements and aquatic and sediment toxicity testing appear to be warranted as part of an RFI focused towards conducting an ecological risk assessment. However, before a commitment is made to the focused ecological risk assessment, the SWMU 50 analytical results should be assessed along with the results of the RFI being conducted for the Landfill SWMUs 2, 3, 4, and 5 which are located beneath and adjacent to SWMU 50. Data collected for the RFI was not included in this report because of the more comprehensive analysis performed for the RFI and to avoid redundancy. Both the RFA SV and RFI data will be used to assess additional sampling and analysis required to complete a focused ecological risk assessment for SWMU 50. Recommendations pertaining to the need for a focused ecological risk assessment at SWMU 50 will be made in the RFI report for the Group I SWMUs

The Navy plans to remove some of the dredge material to provide capacity for future maintenance dredging of Mayport Turning Basin. Existing data and data obtained from a focused ecological risk assessment, if required, and corrective measures study, if required, could provide an adequate basis to evaluate use, if any, of the dredge material such as for asphalt or concrete mix for roads.

The possible need for a focused ecological risk assessment is based on the following rationale.

- No pesticides or PCBs were detected in the surface water samples.
- The surface water in the western and eastern dredge material holding areas is an ephemeral feature that is present during dredging activities and varies depending on the frequency and amount of rainfall.
- Target analytes and concentrations present in the surface water are expected to have considerable variation because of the variations in the type of water placed in the holding areas (seawater or brackish water and rainwater).
- Because the dredge material holding areas do not maintain water for a sufficient duration, use of this area for recreation harvesting or aquatic species is not viable. These areas are viable habitat for small mammals, reptiles, and birds.

- Because bench mark values have not been established by Long and others (1993) and MacDonald (1994) for benzo(k)fluoranthene, butylbenzylphthalate, di-n-octylphthalate, antimony, beryllium, selenium, and cyanide they were considered CPCs.
- Target analytes that exceeded the TEL were benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene. Target analytes that exceeded the ER-L and TEL were fluoranthene, cadmium, and lead. None of the target analytes exceeded values for the ER-M or PEL.
- Concentrations of benzo(a)pyrene and antimony exceed FDEP residential soil cleanup goals and concentrations of beryllium exceeded residential and industrial worker soil cleanup goals.

## 5.0 SWMU 56, BUILDING 1552 ACCUMULATION AREA

5.1 SITE DESCRIPTION AND BACKGROUND. SWMU 56 is a hazardous waste accumulation area located south of the squadron helicopter hangar, Building 1552. The site has been in operation since approximately 1985 (Figure 1-3). SWMU 56 consists of a 20-foot by 10-foot concrete pad that is surrounded by a chain-link fence. The site is a 90-day accumulation area (satellite storage area) for steel drums containing wastes such as solvents, paint thinners, used rags, aerosol cans, and waste oils. The Building 1552 Accumulation Area was identified as an SWMU in the RFA because a stained area with sparse vegetation was observed east of the site (A.T. Kearney, 1989). Residual adsorbent material was also observed in the grass along the edge of the concrete pad (A.T. Kearney, 1989). The RFA suggested that soil samples be collected from the stained area and from the edge of the concrete pad on the east side and analyzed for VOCs, SVOCs, and metals (A.T. Kearney, 1989).

5.2 RFA SV FIELD INVESTIGATIONS. Based on the sampling program recommended in the RFA, four surface soil samples were collected in April 1992 from areas of apparent vegetative stress on the eastern side of the concrete pad (ABB-ES, 1992c) (Figure 5-1). Analytical results of these samples suggest a possible release of VOCs and SVOCs to soil and the possibility of an adverse impact to groundwater (ABB-ES, 1993b).

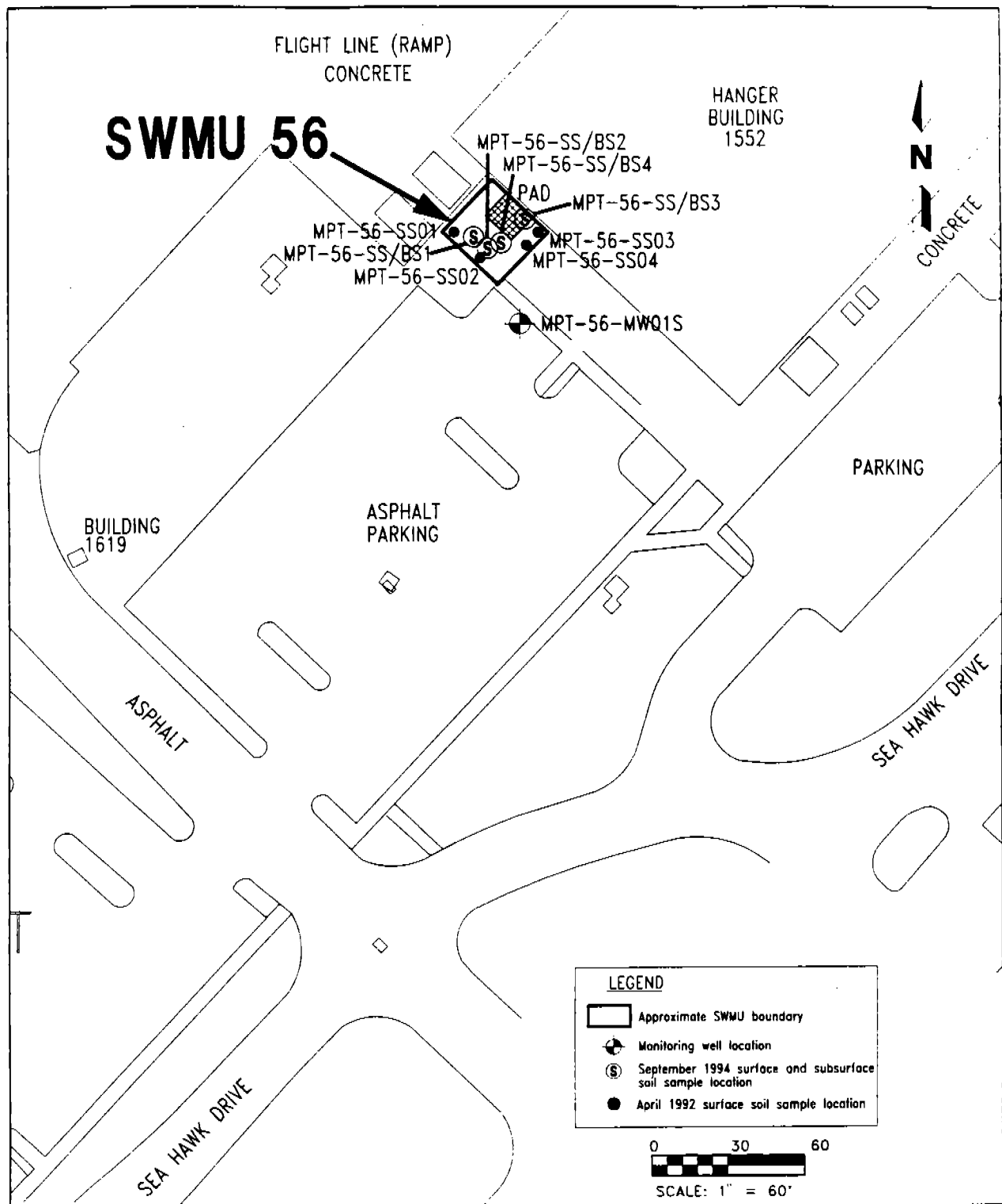
Confirmation sampling of soil and groundwater at SWMU 56 was performed during September 1994 by collecting additional surface and subsurface soil samples, and installing a single monitoring well, and collecting a groundwater sample. Four surface and four subsurface soil samples were collected on September 1, 1994, at the approximate locations of the previous surface soil samples (Figure 5-1). One monitoring well, MPT-56-MW1S, was installed August 3, 1994 (Figure 5-1), and sampled on September 10, 1994.

During the 1992 sampling event, surface soil samples were collected from the land surface to a depth of 6 inches bls. During the 1994 sampling event, surface soil samples were collected from the land surface to 1 foot bls and subsurface soil samples were collected from 3 to 4 feet bls except MPT-56-BS04 which was collected from a sampling interval of 4 to 5 feet bls.

Because many field activities are common to all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR, Volume I (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 56 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Monitoring well installation, soil and groundwater sampling procedures, and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).

Soil Sample Collection Procedure. Surface and subsurface soil sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991) and Subsection 2.1.1, Soil Sampling, of the GIR (ABB-ES, 1995b).

Monitoring Well Installation Procedure. Drilling and well installation were accomplished as described in the NAVSTA Mayport RFI (ABB-ES, 1991), and Subsection 2.1.1, Monitoring Well and Piezometer Installation, of the GIR (ABB-ES, 1995b).



**FIGURE 5-1**  
**1992 AND 1994 SAMPLING LOCATIONS AT**  
**SWMU 56, BUILDING 1552 ACCUMULATION AREA**



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**

H:\9500\000300\GLC\4-5-95



Groundwater Sample Collection Procedure. Groundwater sampling was accomplished as described in Subsection 2.1.4, *Groundwater Sampling*, of the GIR (ABB-ES, 1995b).

Laboratory Analyses. Soil and groundwater samples were analyzed for the same target analytes including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list presented in Appendix IX (40 CFR 264) and USEPA Contract Laboratory Program target compound list and target analyte list. The environmental samples were analyzed using methods from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW 846) (USEPA, 1986). A list of the target analytes is provided in Appendix A. Analytical results for each sample from the 1992 sampling event were presented in the RFA SV report, Phase 1 (ABB-ES, 1992c), and the results of the 1994 sampling event are included in Appendix B.

5.3 FINDINGS. The following presents a brief description of the results of the RFA SV sampling activities at SWMU 56. The findings include site geologic and hydrogeologic conditions and results of the analyses of surface and subsurface soil samples and groundwater samples.

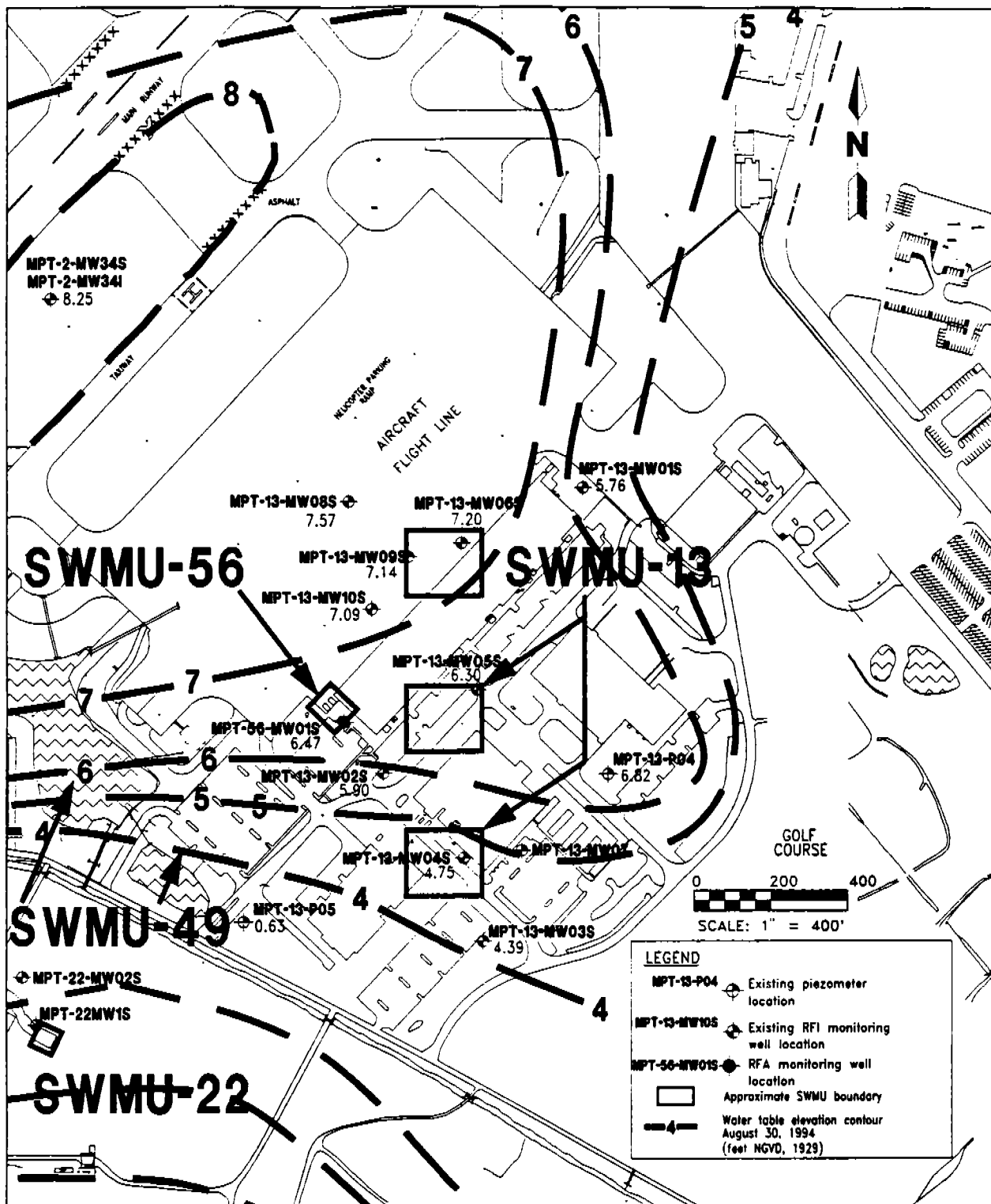
Site Geology. In August 1994, one soil boring was drilled at SWMU 56 for the installation of a shallow monitoring well screened across the water table (Figure 5-1). The boring log for this monitoring well is found in the GIR, Appendix A, Boring Logs (ABB-ES, 1995b). The following is a description of the subsurface soils encountered at the boring location.

Boring MPT-56-MW01S (located near the southern corner of SWMU 56) encountered a fine sand that graded with depth to a fine silty sand with traces of shell fragments to approximately 10 feet bls, overlying a silty clay with a trace of shell fragments to the explored depth of 12.5 feet bls.

Geologic cross sections provided in the NAVSTA Mayport GIR (see Figures 3-3 and 3-4 ABB-ES, 1995b) depict subsurface geologic conditions in the vicinity of SWMU 56.

Site Hydrogeology. Groundwater levels at the SWMU 56 monitoring well and other RFI and RFA SV sites at NAVSTA Mayport were measured within a 7-hour period on August 30, 1994. The depth to the groundwater level at each location was measured relative to a notch or mark on the north side of each monitoring well surveyed to the NGVD of 1929 (commonly referred to as msl). The depth to groundwater at monitoring well MPT-56-MW01S is approximately 3 feet bls. Because only one monitoring well was installed at the site, a potentiometric surface map was not prepared specifically for SWMU 56; however, a potentiometric surface map (Figure 5-2) was prepared using monitoring wells for SWMU 13. Groundwater level data used to construct this and other potentiometric surface maps are provided in Appendix G. Based on the potentiometric surface shown on Figure 5-2, groundwater in the vicinity of SWMU 56 flows toward the southeast.

An approximation of the horizontal linear velocity of groundwater flow in the water table zone of the surficial aquifer in the vicinity of SWMU 56 is based on the potentiometric surface (hydraulic gradient) of the water table, estimates of radial hydraulic conductivities at monitoring well locations, and an estimate of the porosity (ratio of the volume of voids to total volume of the soil) of the saturated subsurface soil. The horizontal linear velocity was calculated from a modified form of Darcy's equation and represents the ratio of linear travel distance to travel time between two points (Freeze and Cherry, 1979). The horizontal linear velocity is expressed as  $V_D/N_e$ , where  $V_D$  is the Darcy velocity ( $V_D = KI$ , where  $K$  is the radial hydraulic



**FIGURE 5-2**  
**MONITORING WELL LOCATIONS AND**  
**POTENTIOMETRIC SURFACE MAP OF SWMU 56**  
**AUGUST 30, 1994**



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**

H:\9500\001200\GLC-NAB\7-17-95

conductivity and  $I$  is the hydraulic gradient) and  $N_e$  is the effective porosity of the saturated geologic stratum. An effective porosity of 0.35 is used in these calculations. (See Section 3.2.3, Physical Characteristics of Soil, in the NAVSTA Mayport GIR, ABB-ES, 1995b).

In-situ radial hydraulic conductivity values for monitoring wells in the vicinity of SWMU 56 are presented in Table 5-1. The range of in-situ radial hydraulic conductivity values in the vicinity of SWMU 56 are approximately 1.3 feet per day (MPT-13-P5) to 18.1 feet per day (MPT-13-P1). The hydraulic gradient appears to be relatively uniform over SWMU 56 (0.006 ft/ft on August 30, 1994) and an approximation of the horizontal linear velocity of the groundwater ranges from approximately 0.03 to 0.31 foot per day.

**Table 5-1**  
**Average Groundwater Velocities at SWMU 56**

Groups I and II RFA SV Report U. S. Naval Station Mayport, Florida					
Location	Estimated Effective Porosity	Hydraulic Conductivity (feet per day)	Estimated Gradient <sup>1</sup> (feet per foot)	Estimated Linear Velocity (feet per day)	Estimated Linear Velocity (feet per year)
MPT-13-P1	0.35	18.1 <sup>2</sup>	0.006	0.31	113
MPT-13-P4	0.35	15.1 <sup>2</sup>	0.006	0.25	91
MPT-13-P5	0.35	1.3 <sup>2</sup>	0.006	0.03	11

<sup>1</sup> Based on synoptic water table elevations.

<sup>2</sup> In-situ conductivity measurement during Phase 1 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), February 1992.

Based on the values for horizontal linear velocity and assuming no dilution, dispersion, or retardation, a contaminant in the water table zone of the surficial aquifer may travel at rates of 11 to 113 feet per year (Table 5-1).

Surface and Subsurface Soil Analytical Results. Tables 5-2 and 5-3 summarize the validated analytical results for organic and inorganic target analytes, respectively, detected in soil samples collected at SWMU 56. Complete analytical results are provided in Appendix B. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Tables 5-4 and 5-5 for surface and subsurface soil samples, respectively. The target analytes detected in the environmental samples were compared to background screening values computed from station wide surface and subsurface soil samples (ABB-ES, 1995b) and bench mark values consisting of USEPA soil screening guidance values (USEPA, 1994), USEPA Region III RBC (USEPA, 1995) and the State of Florida cleanup goals (FDEP, 1995). The state of Florida cleanup goals consisted of residential values for surface soil and industrial worker values for subsurface soil.

Each of the bench mark criteria provided in Tables 5-4 and 5-5 is human health based and represents the lower of either a noncarcinogenic HI of 1, where values of less than 1 represent a concentration at which noncarcinogenic effects are not likely or a lifetime excess cancer risk of  $10^{-6}$ , which represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure. The concentrations listed for the USEPA Region III RBCs correspond to an HI of 0.1, whereas the USEPA

Superfund SSLs and the State of Florida cleanup goals are based on an HI of 1. The Federal NCP, (40 CFR, Part 300) states that for carcinogens a lifetime excess cancer risk in the range of  $10^{-4}$  (a chance of 1 in 10,000 for an adverse carcinogenic effect for a continuous lifetime exposure) to  $10^{-6}$  represents concentrations that are considered by USEPA to be protective of human health.

Table 5-2 summarizes the validated analytical results for organic target analytes (VOCs, SVOCs, and pesticides) detected in surface and subsurface soil samples collected in 1992 and 1994 at SWMU 56 (Figure 5-1). The following is a discussion of the target analytes detected during the 1992 and 1994 sampling events.

Surface Soil Sampling, 1992. VOCs, SVOCs, metals, and cyanide were detected in various combinations and concentrations in surface soil samples collected during the 1992 sampling event (Table 5-1). Pesticides and PCBs were not detected in the surface soil samples. The VOCs detected included acetonitrile, carbon disulfide, trichlorofluoromethane, chloroform, 2-butanone, 4-methyl-2-pentanone, and toluene. The SVOCs detected include di-n-butylphthalate, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate. Phthalate compounds are common plasticizers that may be introduced by contacting the sample or container with gloves worn by either field or laboratory personnel or tubing or other plastic items. Twelve metals including arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver, vanadium, and zinc and cyanide were detected in the surface soil samples collected in 1992 (Table 5-2).

Surface and Subsurface Soil Sampling, 1994. VOCs, metals, and cyanide were detected in various combinations and concentrations in surface and subsurface soil samples collected during the 1994 sampling event (Table 5-1). SVOCs, PCBs, and cyanide were not detected in the surface soil samples.

The VOCs detected in samples collected during the 1992 sampling event were not detected during the 1994 sampling event. Only one VOC, acetone, was detected during the 1994 sampling event. Acetone is a common field and laboratory contaminant that can be introduced through inadequate drying of equipment following decontamination of sampling equipment or as a result of its widespread use as a solvent at the analytical laboratory.

None of the SVOCs detected in samples collected during the 1992 sampling event were detected in samples collected in the 1994 sampling event.

The same suite of metals with the addition of selenium and thallium were detected in the surface soil samples collected in 1994 (Table 5-2). Metals detected in the subsurface soil samples were a subset of those detected in the surface soil samples, including arsenic, barium, lead, vanadium, and zinc.

Groundwater Analytical Results. A summary of groundwater quality parameters is provided in Table 5-6 and Table 5-7 summarizes the validated analytical results for the groundwater sample collected at SWMU 56. Table 5-7 also provides a summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values. The results of the analyses of the groundwater sample are provided in Appendix B. The target analytes detected in the groundwater sample were compared to background screening values computed from station wide background groundwater samples (ABB-ES, 1995b), and bench mark values

**Table 5-2**  
**Organic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.: Sample Location: Sample No.: Date Sampled: Sample Depth (ft bls):	20753		R8665		R8665		20753		R8665		20753		R8665	
	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
<b>VOCs, Soil, (µg/kg)</b>														
Acetone	--		--		--		--		8	J	--		--	
Acetonitrile	--		--		--		--		--		--		--	
Carbon disulfide	--		--		--		--		--		--		--	
Trichlorofluoromethane	--		--		--		7		--		--		--	
Chloroform	--		--		--		--		--		--		--	
2-Butanone	--		--		--		--		--		--		--	
4-Methyl-2-pentanone	--		--		--		--		--		--		--	
Toluene	--		--		--		--		--		--		--	
<b>SVOCs, Soil, (µg/kg)</b>														
Di-n-butyl Phthalate	--		--		--		--		--		--		--	
Butyl benzyl Phthalate	370	J	--		--		790	J	--		790	J	--	
bis(2-Ethylhexyl) Phthalate	1,600	J	--		--		1,800	J	--		1,800	J	--	
<b>Pesticides, Soil, (µg/kg)</b>														
4,4'-DDE	--		1	J	--		--		--		--		--	

See notes at end of table.

**Table 5-2 (Continued)**  
**Organic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.: Sample Location: Sample No.: Date Sampled: Sample Depth (ft bls):	20753		20753		R8665		21171		R8665	
	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Common Name										
VOCs, Soil (µg/kg)										
Acetone	--				--		--		--	
Acetonitrile	30	J	10	J	--		--		--	
Carbon disulfide	3	J	--		--		3	J	--	
Trichlorofluoromethane	5	J	--		--		--		--	
Chloroform	--		5	J	--		--		--	
2-Butanone	--		--		--		7	J	--	
4-Methyl-2-pentanone	13		3	J	--		--		--	
Toluene	2	J	1	J	--		--		--	
SVOCs, Soil (µg/kg)										
Di-n-butyl Phthalate	--		--		--		49	J	--	
Butyl benzyl Phthalate	--		--		--		--		--	
bis(2-Ethylhexyl) Phthalate	--		1,000	J	--		79	J	--	
Pesticides, Soil (µg/kg)										
4,4'-DDE	--		--		--		--		1.5	

See notes at end of table.

**Table 5-2 (Continued)**  
**Organic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8665		R8665		R8665		R8665	
Sample Location:	MPT-56-BS01		MPT-56-BS02		MPT-56-BS03		MPT-56-BS04	
Sample No.:	56BS001		56BS002		56BS003		56BS004	
Date Sampled:	09/01/94		09/01/94		09/01/94		09/01/94	
Sample Depth (ft bls):	3 to 4		3 to 4		3 to 4		4 to 5	
Common Name	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
<b>VOCs, Soil, (µg/kg)</b>								
Acetone	25		8	J	9	J	--	
Acetonitrile	--		--		--		--	
Carbon disulfide	--		--		--		--	
Trichlorofluoromethane	--		--		--		--	
Chloroform	--		--		--		--	
2-Butanone	--		--		--		--	
4-Methyl-2-pentanone	--		--		--		--	
Toluene	--		--		--		--	
<b>SVOCs, Soil, (µg/kg)</b>								
Di-n-butyl Phthalate	--		--		--		--	
Butyl benzyl Phthalate	--		--		--		--	
bis(2-Ethylhexyl) Phthalate	--		--		--		--	
<b>Pesticides, Soil, (µg/kg)</b>								
4,4'-DDE	1.8		6.3		2.4		2.1	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = identifies the duplicate of the corresponding environmental sample.

ft bls = sample collection depth in feet below land surface.  
Conc. = concentration.  
Qual. = qualifier.  
VOCs = volatile organic compounds.  
µg/kg = micrograms per kilogram.  
-- = analyte not detected.  
"J" = estimated value.  
SVOCs = semivolatile organic compounds.  
DDE = dichlorodiphenyldichloroethene.

**Table 5-3**  
**Inorganic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	21510		R8665		R8665		21510		R8665	
Sample Location:	MPT-56-SS01		MPT-56-SS01		MPT-56-SS01		MPT-56-SS02		MPT-56-SS02	
Sample No.:	MPT56SS01		56SS001		56SS001Dup		MPT56SS02		56SS002	
Date Sampled:	04/21/92		09/01/94		09/01/94		04/21/92		09/01/94	
Sample depth (ft bls):	0 to 0.5		0 to 1		0 to 1		0 to 0.5		0 to 1	
Common Name Soil (mg/kg)	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Arsenic	0.95	J	0.94	J	0.94	J	1.2	J	0.62	J
Barium	29.8	J	7.4	J	12.9	J	183		4.5	J
Beryllium	0.19	J	-		-		0.13	J	-	
Cadmium	4.3		0.39	J	2.1	J	3.1		-	
Chromium	33.7		7.2	J	17.6	J	29.3		3.7	J
Cobalt	2.9	J	-		-		1.6	J	-	
Copper	52.7		6.8	J	25.7	J	12.4		2.4	J
Lead	21.3		7.4	J	20.6	J	91.2	J	2.7	J
Nickel	6.2	J	2.1	J	5.5	J	8.4	J	1.5	J
Selenium	-		0.15	J	-		-		-	
Silver	0.64	J	-		-		0.47	J	-	
Thallium	-		-		-		-		-	
Vanadium	4.1	J	4.7	J	4.8	J	3.7	J	2.9	J
Zinc	228	J	24	J	88.8	J	133	J	8.4	J
Cyanide	-		-		-		-		-	

See notes at end of table.



**Table 5-3 (Continued)**  
**Inorganic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	21510		21510		R8665		21510		R8665	
Sample Location:	MPT-56-SS03		MPT-56-SS03		MPT-56-SS03		MPT-56-SS04		MPT-56-SS04	
Sample No.:	MPT56SS03		MPT56SS03Dup		56SS003		MPT56SS04		56SS004	
Date Sampled:	04/21/92		04/21/92		09/01/94		04/21/92		09/01/94	
Sample depth (ft bls):	0 to 0.5		0 to 0.5		0 to 1		0 to 0.5		0 to 1	
Common Name Soil (mg/kg)	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Arsenic	0.82	J	1.5	J	0.71	J	1.1	J	0.73	J
Barium	6.2	J	6.6	J	7.0	J	7.1	J	7.4	J
Beryllium	0.1	J	0.12	J	-		0.13	J	-	
Cadmium	-		-		0.23	J	-		0.42	J
Chromium	8.7		3.9		7.2	J	52.3		5.0	J
Cobalt	-		-		0.71	J	0.83	J	-	
Copper	4.1	J	3.5	J	3.9	J	5.1	J	6.3	J
Lead	8	J	4.9	J	7.9	J	4.9	J	7.0	J
Nickel	-		1.5	J	1.9	J	3.1	J	2.3	J
Selenium	-		-		-		-		0.14	J
Silver	-		-		-		-		-	
Thallium	-		-		-		-		0.15	J
Vanadium	3.6	J	3.5	J	4.8	J	3.4	J	4.1	J
Zinc	16.3	J	14.9	J	15.9	J	17.5	J	31.7	J
Cyanide	0.7	J	-		-		0.87	J	-	
See notes at end of table.										

**Table 5-3 (Continued)**  
**Inorganic Analytes Detected in Soil Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	21510		21510		21510		21510	
Sample Location:	MPT-56-BS01		MPT-56-BS02		MPT-56-BS03		MPT-56-BS04	
Sample No.:	56BS001		56BS002		56BS03		56BS004	
Date Sampled:	09/01/94		09/01/94		09/01/94		09/01/94	
Sample depth (ft bls):	3 - 4		3 - 4		3 - 4		4 - 5	
Common Name Soil (mg/kg)	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Arsenic	0.55	J	0.61	J	0.48	J	0.42	J
Barium	3.1	J	2.5	J	-		3.2	J
Beryllium	-		-		-		-	
Cadmium	-		-		-		-	
Chromium	-		-		-		-	
Cobalt	-		-		-		-	
Copper	-		-		-		-	
Lead	1.2	J	0.98	J	0.92	J	0.97	J
Nickel	-		-		-		-	
Selenium	-		-		-		-	
Silver	-		-		-		-	
Thallium	-		-		-		-	
Vanadium	1.8	J	1.9	J	2.0	J	1.4	J
Zinc	-		5.4	J	-		6.7	J
Cyanide	-		-		-		-	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = identifies the duplicate of the corresponding environmental sample.

ft bls = sample collection depth in feet below land surface.  
mg/kg = milligrams per kilogram.  
Conc. = concentration.  
Qual. = qualifier.  
"J" = estimated value.  
- = analyte not detected.

**Table 5-4**  
**Chemicals of Potential Concern in Surface Soil at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Acetone	1/8	10 to 21	6.8	6.8	ND	780,000	7,800,000	130,000	No	S, P, G
Acetonitrile	1/8	100 to 140	20	20	ND	47,000	NA	NA	No	S
2-Butanone	1/8	10 to 14	7	7	ND	4,700,000	NA	2,500,000	No	S, G
Carbon disulfide	4/8	5 to 5	2 to 3	2.5	ND	780,000	7,800,000	2,600	No	S, P, G
Chloroform	1/8	5 to 7	4	4	ND	100,000	110,000	300	No	S, P, G
4-Methyl-2-pentanone	1/8	10 to 14	8	8	ND	630,000	NA	310,000	No	S, G
Trichlorofluoromethane	2/8	5 to 7	4 to 7	5.5	ND	2,300,000	NA	3,400	No	S, G
Toluene	1/8	5 to 7	1.5	1.5	ND	1,600,000	16,000,000	270,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Butyl benzyl phthalate	2/8	360 to 3,000	370 to 790	580	ND	1,600,000	16,000,000	15,000,000	No	S, P, G
Di-n-butylphthalate	1/8	690 to 3,000	49	49	ND	780,000	7,800,000	7,500,000	No	S, P, G
bis(2-Ethylhexyl)phthalate	4/8	690 to 710	79 to 1,800	1,182	ND	46,000	46,000	45,000	No	S, P, G
<b>Pesticides/PCBs (µg/kg)</b>										
4,4'-DDE	2/8	0.69 to 220	0.68 to 1.5	1.1	2.3	1,900	2,000	2,900	No	S, P, G

See notes at end of table.

**Table 5-4 (Continued)**  
**Chemicals of Potential Concern in Surface Soil at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Inorganics (mg/kg)</b>										
Arsenic	8/8	NR	0.62 to 1.2	0.93	ND	0.37	0.4	0.7	Yes	
Barium	8/8	NR	4.5 to 183	31.9	5.6	550	5,500	5,000	No	S, P, G
Beryllium	4/8	0.09 to 0.16	0.11 to 0.19	0.14	0.16	0.15	0.1	0.1	Yes	
Cadmium	5/8	0.21 to 0.70	.23 to 4.3	1.9	2	3.9	39	37	Yes	
Chromium	8/8	NR	3.7 to 52.3	17.4	2.6	10 <sup>3</sup> 39	10 <sup>3</sup> 390	10 <sup>3</sup> 150	Yes	
Cobalt	4/8	0.64 to 0.84	0.71 to 2.9	1.5	ND	470	NA	4,700	No	S, G
Copper	8/8	NR	2.4 to 52.7	12.9	2.2	290	NA	2,900	No	S, G
Lead	8/8	NR	2.7 to 91.2	15.5	ND	11 <sup>4</sup> 400	11 <sup>4</sup> 400	11 <sup>4</sup> 500	No	S, P, G
Nickel	8/8	NR	0.98 to 8.4	3.5	ND	160	1,600	1,500	No	S, P, G
Selenium	2/8	0.12 to 0.32	0.11 to 0.14	0.13	1.36	39	390	390	No	B
Silver	2/8	0.37 to 0.45	0.47 to 0.64	0.56	ND	39	390	380	No	S, P, G
Vanadium	8/8	NR	2.9 to 4.1	3.9	4	55	550	480	No	S, P, G
Zinc	8/8	NR	8.4 to 228	63.3	2.6	2,300	23,000	23,000	No	S, P, G
Cyanide	2/8	0.14 to 0.26	0.40 to 0.87	0.64	ND	160	1,600	1,600	No	S, P, G

See notes on next page.

**Table 5-4 (Continued)**  
**Chemicals of Potential Concern in Surface Soil at SWMU 56**

Groups 1 and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Notes from previous pages.

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "LJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- <sup>6</sup> Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the aggregate resident based on a cancer risk of  $10^{-6}$  and the child resident based on a hazard quotient of 1.
- <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:  
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- <sup>9</sup> The value is based on chromium hexavalent form.
- <sup>10</sup> The value is based on chromium hexavalent form.
- <sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised Interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 56SS01; 56SS02; 56SS03; 56SS04; 56SS00101; 56SS00201; 56SS301; 56SS401

Duplicate sample locations include: 56SS03D; 56SS00101D

Background sample locations include: MPT-B-SS1; MPT-B-SS2; MPT-B-SS3; MPT-B-SS4; MPT-B-SS5; MPT-B-SS6

Duplicate background sample locations include: MPT-B-SS1DUP

CPC = chemicals of potential concern.

$\mu\text{g}/\text{kg}$  = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

DDE = dichlorodiphenyldichloroethene.

$\text{mg}/\text{kg}$  = milligrams per kilograms.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

**Table 5-5**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC (Yes/No)	Reason <sup>8</sup>
<u>Volatiles (µg/kg)</u>				14	ND	780,000	7,800,000	890,000	No	S, P, G
Acetone	3/4	13	8 to 25							
<u>Semivolatiles (µg/kg)</u>										
No Analytes Detected										
<u>Pesticides/PCBs (µg/kg)</u>										
4,4'-DDE	4/4	NR	1.8 to 6.3	3.2	3.5	1,900	2,000	9,900	No	S, P, G
<u>Inorganics (mg/kg)</u>										
Arsenic	4/4	NR	0.42 to 0.61	0.52	0.9	90.37	0.4	3.1	No	B
Barium	3/4	2.4	2.5 to 3.2	2.9	7.2	550	5,500	7,400	No	B
Lead	4/4	NR	0.92 to 1.2	1	2.8	10,400	10,400	1,000	No	B
Vanadium	4/4	NR	1.4 to 2	1.8	3.2	55	550	4,800	No	B
Zinc	2/4	3.8 to 3.9	5.4 to 6.7	6.1	4.8	2,300	23,000	550,000	No	S, P, G

See notes on next page.

**Table 5-5 (Continued)**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 56**

Groups I and II RFA SV Report  
 U.S. Naval Station  
 Mayport, Florida

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "JJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995 and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- <sup>6</sup> Source: USEPA. December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the industrial worker based on a cancer risk of  $10^{-6}$  and the general worker based on a hazard quotient of 1.
- <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- <sup>9</sup> The value is based on arsenic as a carcinogen.
- <sup>10</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised Interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 56BS00104; 56BS00204; 56BS00304; 56BS00405

Background sample locations include: MPT-B-BS1; MPT-AB-BS4; MPT-B-BS5; MPT-B-BS6

Duplicate background sample locations include: MPT-B-BS1DUP

CPC = chemicals of potential concern.

µg/kg = micrograms per kilograms.

ND = not detected in any background samples.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

NA = not available.

PCBs = polychlorinated biphenyls.

DDE = dichlorodiphenyldichloroethene.

mg/kg = milligrams per kilograms.

from USEPA Region III RBCs (USEPA, 1995) and Florida groundwater guidance concentrations (FDEP, 1994). The FDEP guidance concentrations include Federal and State promulgated and unpromulgated values. The State of Florida has promulgated some guidance concentrations at values lower than Federal values.

Each of the bench mark criteria provided in Table 5-7 is human health based and represents the lower of either a noncarcinogenic HI of 1 or a lifetime excess cancer risk of  $10^{-6}$ . Bench mark values for a noncarcinogenic HI of 1 represent a concentration where noncarcinogenic effects are not likely. A bench mark value for a lifetime excess cancer risk of  $10^{-6}$  represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure.

The water quality parameters for the SWMU 56 groundwater monitoring wells were compared to the State of Florida secondary water quality criteria (Table 5-6). The value determined for color exceeded the State of Florida secondary water quality criteria for the groundwater sample. The water quality criteria are used to assess potable water from a water supply system and may not be directly applicable to a groundwater sample collected from a monitoring well.

The value for hardness as  $\text{CaCO}_3$  (300 mg/l) suggests that the groundwater would be considered very hard (greater than 180 mg/l) (Durfor and Becker, 1964). The value for total dissolved solids (426 mg/l) suggests that the groundwater would be considered fresh. The range for classifying water as fresh is 0 to 1,000 mg/l total dissolved solids (Freeze and Cherry, 1979).

SVOCs, pesticides, PCBs, and cyanide were not detected in the groundwater sample. One VOC, acetone, was detected in the groundwater sample (Table 5-7). Seven inorganic analytes including barium, calcium, iron, magnesium, manganese, sodium, and vanadium were detected in the groundwater sample.

#### 5.4 PRELIMINARY RISK EVALUATION.

Surface Soil. None of the VOCs, SVOCs, or pesticides detected in the surface soil samples exceeded the bench mark values. Four of the inorganic analytes, arsenic, beryllium, cadmium, and chromium, were detected in surface soil samples at concentrations that exceeded at least one of the bench mark values, which are based on a lifetime excess cancer risk of  $10^{-6}$ .

Each of the eight surface soil samples contained arsenic at concentrations that exceeded the USEPA Region III RBC (0.37 mg/kg) and the proposed Superfund SSL (0.4 mg/kg). Seven of the eight samples contained arsenic at concentrations that exceed the FDEP cleanup goal (0.7 mg/kg). Arsenic was not detected in the background surface soil samples.

One sample contained beryllium at a concentration that exceeded the background screening value (0.16 mg/kg). Only one of eight samples contained beryllium at a concentration that exceeds the USEPA Region III RBC (0.15 mg/kg) and five of eight samples contained beryllium at concentrations that exceed the proposed Superfund SSL and Florida cleanup goal of 0.1 mg/kg. The surface soil background screening value for beryllium also exceed the bench mark values.

Three of eight samples contained cadmium at concentrations that exceeded the background screening value (2 mg/kg). Only one of eight samples contained



**Table 5-6**  
**Water Quality Parameters for Groundwater Samples at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		M7505	M7515
Sample Matrix:		Groundwater	Groundwater
Sample Location:		MPT-26-MW01S	Secondary <sup>1</sup> Water Quality Criteria
Sample No.:		26MW0001S	
Date Sampled:		08/02/94	
Common Name	Units	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	283	-
Ammonia-N	mg/l	1.8	-
Chloride	mg/l	44.3	250,000
Color	APHA	120	15
Hardness as CaCO <sub>3</sub>	mg/l	300	-
Nitrate/Nitrite-N	mg/l	0.48	10,000
Oil and Grease	mg/l	NA	-
Phosphorous-P, Total	mg/l	1.33	-
Sulfate	mg/l	50	250,000
Sulfide	mg/l	2.4	-
Total Dissolved Solids	mg/l	426	500
Total Kjeldahl Nitrogen	mg/l	2.2	-
Total Organic Carbon	mg/l	14	-
pH	SU	6.71	6.5 to 8.5

<sup>1</sup> Secondary Water Quality Criteria, Chapter 62-550.320, Florida Administrative Code (FAC)  
Notes: Laboratory data validated at Naval Energy and Environmental Support Activity  
(NEESA) Level C.

SWMU = solid waste management unit.  
Conc. = concentration.  
CaCO<sub>3</sub> = calcium carbonate.  
mg/l = milligrams per liter.  
- = analyte not detected.  
APHA = American Public Health Association  
NA = not analyzed.  
SU = standard units.

**Table 5-7**  
**Chemicals of Potential Concern in Groundwater at SWMU 56**

**Groups I and II RFA SV Report**  
**U.S. Naval Station**  
**Mayport, Florida**

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Background Screening Concentrations <sup>3</sup>	Risk Based Screening Concentration <sup>4</sup>	Florida Guidance Concentration <sup>5</sup>	Analyte CPC7 (Yes/No)	Reason <sup>6</sup>
<b>Volatiles (µg/l)</b>								
Acetone	1	10	14	ND	370	700	No	S, G
<b>Semivolatiles (µg/l)</b>								
No Analytes Detected								
<b>Pesticides/PCBs (µg/l)</b>								
No Analytes Detected								
<b>Inorganics (µg/l)</b>								
Barium	1	0.4	9.7	10.2	260	2000	No	B
Calcium	1	41.7	97,100	170,450	1,055,398	NA	No	B
Iron	1	9.1	477	2,076	13,267	300	No	B
Magnesium	1	31.4	36,100	21,234	118,807	NA	No	S
Manganese	1	0.6	89.4	185.8	18	50	No	B
Sodium	1	14.4	240,000	18,624	396,022	160,000	Yes	
Vanadium	1	1.5	3.8	10.6	26	49	No	B

See notes on next page.

**See notes on next page.**

**Table 5-7 (Continued)**  
**Chemicals of Potential Concern in Groundwater at SWMU 56**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Background Screening Concentrations <sup>3</sup>	Risk Based Screening Concentration <sup>4</sup>	Florida Guidance Concentration <sup>5</sup>	Analyte CPC? (Yes/No)	Reason <sup>6</sup>
<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values). <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For nondetected values, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate. <sup>3</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. <sup>4</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for tap water per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from RBC table dated February 1995, and are based on a cancer risk of 10 <sup>-6</sup> or an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs). <sup>5</sup> Florida Department of Environmental Protection Groundwater Guidance Concentrations (June 1994). <sup>6</sup> Analytes were included or excluded from the risk assessment for the following reasons: S = the maximum detected concentration did not exceed the screening concentration and will not be considered further. G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further. B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations. F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study. C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]). M = the analyte was detected at less than 5 percent and is a CPC in more than one media. P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.								
Notes: The average of a sample and its duplicate is used for all table calculations.  Sample location includes: 56MW001S. Background sample locations include: 01MW001, 08MW005S, 08MW001R, 8MW5S, MPT-1-MW1-1, MPT-S-1-1, and S1.  CPCs = chemicals of potential concern. µg/l = micrograms per liter. ND = not detected in any background samples. PCBs = polychlorinated biphenyls. NA = not available.								

cadmium at a concentration that exceeded the USEPA Region III RBC (3.9 mg/kg). None of the samples contained cadmium at concentrations that exceeded the proposed Superfund SSL (39 mg/kg) or the FDEP cleanup goal (37 mg/kg). The background screening value (2 mg/kg) is less than the bench mark values.

Each of the eight samples contained chromium at concentrations that exceeded the background screening value (2.6 mg/kg). Only one of eight samples contained chromium at a concentration that exceeded the USEPA Region III RBC (39 mg/kg). None of the samples contained concentrations of chromium that exceeded the proposed Superfund SSL (390 mg/kg) or the FDEP cleanup goal (150 mg/kg). The background screening value for chromium (2.6 mg/kg) is less than bench mark values.

Subsurface Soil. The VOC (acetone) and pesticide (4,4'-DDE) detected in subsurface soil did not exceed the bench mark values. The metals (arsenic, barium, lead, and vanadium) detected in the subsurface soil samples exceed the background screening values. Concentrations of zinc exceeded the background screening value but did not exceed any of the bench mark values, and therefore were not considered to be CPCs.

Groundwater. The VOC (acetone) detected in the groundwater sample did not exceed the bench mark values. Two of the inorganic analytes, magnesium and sodium, were detected at concentrations that exceeded their background screening values (21,234  $\mu\text{g}/\text{l}$  and 18,624  $\mu\text{g}/\text{l}$ , respectively). The concentration detected for magnesium (36,100  $\mu\text{g}/\text{l}$ ) was less than the USEPA Region III RBC (118,807  $\mu\text{g}/\text{l}$ ). The concentration detected for sodium (240,000  $\mu\text{g}/\text{l}$ ) was less than the Region III RBC (396,000  $\mu\text{g}/\text{l}$ ), but exceeds the FDEP guidance concentration (160,000  $\mu\text{g}/\text{l}$ ), and was considered to be a CPC.

## 5.5 CONCLUSIONS AND RECOMMENDATIONS.

### 5.5.1 Conclusions

Surface Soil Samples. None of the VOCs (acetonitrile, acetone, carbon disulfide, trichlorofluoromethane, chloroform, 2-butanone, 4-methyl-2-butanone, and toluene), SVOCs (di-n-butylphthalate, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate), or pesticide (4,4'-DDE) detected in the surface soil samples exceeded the bench mark values. In addition, the seven VOCs (acetonitrile, carbon disulfide, trichlorofluoromethane, chloroform, 2-butanone, 4-methyl-2-butanone, and toluene) detected in samples collected in 1992 were not detected in surface soil samples collected in 1994. PCBs were not detected in the surface soil samples.

Four of the inorganic analytes, arsenic, beryllium, cadmium, and chromium, were detected in surface soil samples at concentrations that exceeded bench mark values, which are based on a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with observed concentrations of arsenic and beryllium is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300) (see Table C-3, Appendix C). Cadmium and chromium were detected at concentrations that were less than the proposed Superfund SSLs and FDEP cleanup goals.

Because the land features at NAVSTA Mayport have been impacted by the deposition of dredge material from the Mayport Turning Basin, it cannot be determined whether the concentrations of arsenic, beryllium, cadmium, and chromium are

related to a release at SWMU 56 or are residual concentrations from the dredge material.

Subsurface Soil Samples. The VOC (acetone) and pesticide (4,4'-DDE) did not exceed the bench mark values. The metals (arsenic, barium, lead, and vanadium) detected in the subsurface soil samples did not exceed the background screening values. Concentrations of zinc exceeded background screening values but not the bench mark values. Therefore, the concentrations of metals detected in the subsurface soil samples are not likely attributable to a release from SWMU 56.

Groundwater Sample. The VOC (acetone) detected in the groundwater sample did not exceed the bench mark values. Acetone is a common sampling or laboratory related contaminant. Magnesium and sodium were detected at concentrations that exceeded their background screening values. The concentration detected for magnesium was less than the USEPA Region III RBC. The concentration detected for sodium was less than the USEPA Region III RBC, but exceeds the FDEP guidance concentration.

The source for sodium may be the incomplete flushing of seawater from the surficial aquifer or from deposition of dredge material from Mayport Turning Basin to construct the land features at NAVSTA Mayport.

5.5.2 Recommendations SWMU 56 is recommended for no further investigation at this time based on the following rationale.

- No PCBs were detected in the surface or subsurface soil samples.
- None of the VOCs (acetonitrile, acetone, carbon disulfide, trichlorofluoromethane, chloroform, 2-butanone, 4-methyl-2-butanone, and toluene), SVOCs (di-n-butylphthalate, butylbenzylphthalate, and bis(2-ethylhexyl)phthalate), or pesticide (4,4'-DDE) detected in the surface soil samples exceeded the bench mark values.
- Concentrations of arsenic, beryllium, cadmium, and chromium detected in surface soil samples exceeded human health based risk bench mark values representing a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with observed concentrations of arsenic and beryllium is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR 300).
- Cadmium and chromium were detected in surface soil at concentrations that were less than the proposed Superfund SSLs and FDEP cleanup goals.
- The VOC (acetone) and pesticide (4,4'-DDE) detected in subsurface soil samples did not exceed the bench mark values.
- The metals (arsenic, barium, lead, and vanadium) detected in the subsurface soil samples did not exceed the background screening values. Zinc exceeded background screening values but not the bench mark values.
- The VOC (acetone) detected in the groundwater sample did not exceed the bench mark values.
- Magnesium and sodium were detected in groundwater at concentrations that exceeded their background screening values; however, the concentrations detected were less than the USEPA Region III RBCs.

- The concentration detected for sodium was less than the USEPA Region III RBC, but exceeds the FDEP guidance concentration. It is likely that sodium is related to the seawater contained in the dredge materials pumped into the eastern dredge spoil basin (SWMU 50) during maintenance dredging.

The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely overstate the specific exposure present at the site (i.e., underestimate the concentration that would result in a lifetime excess cancer risk of  $10^{-6}$ ). Because the chemicals were detected in only one or two media (i.e., soil and or groundwater) all of the exposure pathways and assumptions used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in a lower excess cancer risk than  $10^{-6}$ .

## 6.0 SWMU 19, NAVAL AVIATION DEPOT (NADEP) BLASTING AREA

6.1 SITE DESCRIPTION AND BACKGROUND. The NADEP Blasting Area (SWMU 19) is located north of NADEP Buildings 1470 and 1471, approximately 25 feet from the St. Johns River. The area was used for abrasive blasting of unpainted aircraft carrier parts, including catapult and arresting gear for carrier flight decks. Abrasive blasting was conducted in this area from approximately 1981 until 1989. The area, approximately 75 feet in diameter, is outside and blasting occurred on a blasting rack that is located over bare soil. According to the visual site inspection (VSI) conducted as part of the RFA (A. T. Kearney, 1989), the abrasive used in blasting is Black Beauty™, a slag product marketed for sand blasting purposes.

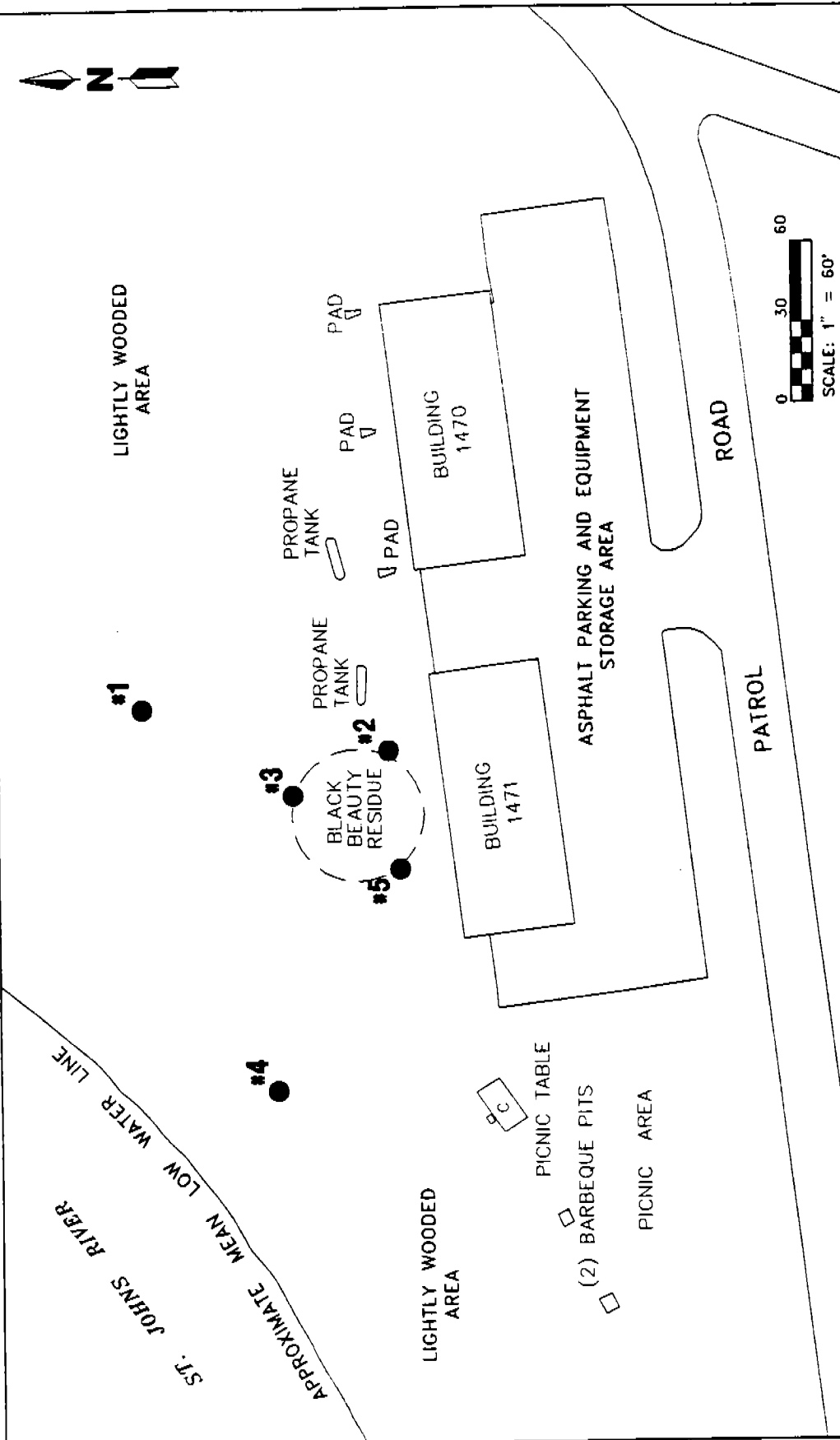
The soils at SWMU 19 are predominately sand, and the area is located along the edge of the St. Johns River. At the time of the VSI in 1989, Black Beauty™ was piled on the ground around the blasting grate and spread over an area approximately 75 feet in diameter. According to the RFA, facility personnel noted that the Black Beauty™ abrasive blasting media had not been collected or removed from the area since operations began there in 1981. The RFA recommended that soil samples be collected in visually contaminated areas between the blasting rack and the river, and that sediment samples be collected from St. Johns River sediments in the vicinity of SWMU 19. Due to the nature of the blasting area operation and abrasive blasting media, it was recommended that all samples collected be analyzed for metals (A. T. Kearney, 1989).

To determine the appropriate disposal methods for the blasting media at the site, the RFA recommended that the residual abrasive blasting media be tested for extraction procedure (EP) toxicity.

During July 1989, five surficial soil samples were collected by Enviropact, Inc., from the area where the Black Beauty™ residual was located (Figure 6-1). The soil samples were analyzed by the extraction procedure for toxicity testing (EP toxicity). A summary of the EP toxicity analytical results is provided in Table 6-1. None of the regulatory criteria for classifying a material as hazardous waste were exceeded (Enviropact, 1989). However, since these samples were collected and the test results obtained, the USEPA has adopted the new analytical methodology, the TCLP, to assess whether a material would be classified as hazardous. Therefore, as part of the RFA SV, three samples of the residual Black Beauty™ material were collected and analyzed by the TCLP analytical method to assess whether it would be classified as hazardous waste.

6.2 RFA SV FIELD INVESTIGATIONS. RFA SV field investigations at SWMU 19 included collection of surface soil, subsurface soil, and sediment samples. Soil and sediment sampling was conducted on June 30, 1994. The objectives of the data gathering activities at SWMU 19 were to collect soil and sediment samples to confirm whether contamination is present at the site. The RFA SV sampling and analytical objectives did not include characterization of the horizontal and vertical extent of contaminants.

Six surface soil samples, six subsurface soil samples, and three sediment samples were collected at SWMU 19. Site-specific reference samples also were collected,



**FIGURE 6-1**  
**LOCATION OF SOIL SAMPLES COLLECTED**  
**FOR EXTRACTION PROCEDURE TOXICITY**  
**TESTING JULY 1989, SWMU 19,**  
**NADEP BLASTING AREA**

**LEGEND**

• #1 Approximate location of samples collected for extraction procedure toxicity testing in July 1989



**Table 6-1**  
**Extraction Procedure Toxicity Analytical Results for**  
**Soil Samples at SWMU 19, 1989**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Parameter	Sample Number					Extraction Procedure Toxicity Regulatory Criteria
	1	2	3	4	5	
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	5.0
Barium	<1.0	<1.0	<1.0	<1.0	<1.0	100.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	1.0
Chromium	<0.5	<0.5	<0.5	<0.5	<0.5	5.0
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	5.0
Mercury	<0.01	0.03	0.01	<0.01	0.02	0.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	1.0
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	0.5

Note: Concentrations of extract in milligrams per liter      Source: Enviropact, 1989

MPT-19-SS06 for surface soil, MPT-19-BS06 for subsurface soil, and MPT-19-SD01 for sediment (Figure 6-2).

Soil and sediment sample locations were chosen to bias the sampling toward areas most likely to be contaminated based on land surface topography and site conditions at the time of sampling. In addition, three discrete samples, MPT-19-Z-001, MPT-19-Z-002, and MPT-19-Z-003, of the Black Beauty™ blasting media were collected for analysis by TCLP (USEPA Method 1311).

Surface and subsurface soil sampling was conducted in areas where Black Beauty™ was observed and sediment sampling was conducted along the shoreline of the St. Johns River in areas topographically downgradient of the blasting area. The surface soil samples were collected from the land surface to a depth of 1 foot bls. The subsurface soil samples were collected from 2 to 3 feet bls except MPT-19-BS02, which was collected from 2.5 to 3 feet bls. A 6-inch-thick piece of concrete was encountered from 2 to 2.5 feet bls at the location of MPT-19-BS02. The sediment samples were collected at a low tide stage from the land surface to a depth of 1 foot bls. No corresponding surface water samples were collected with the sediment samples.

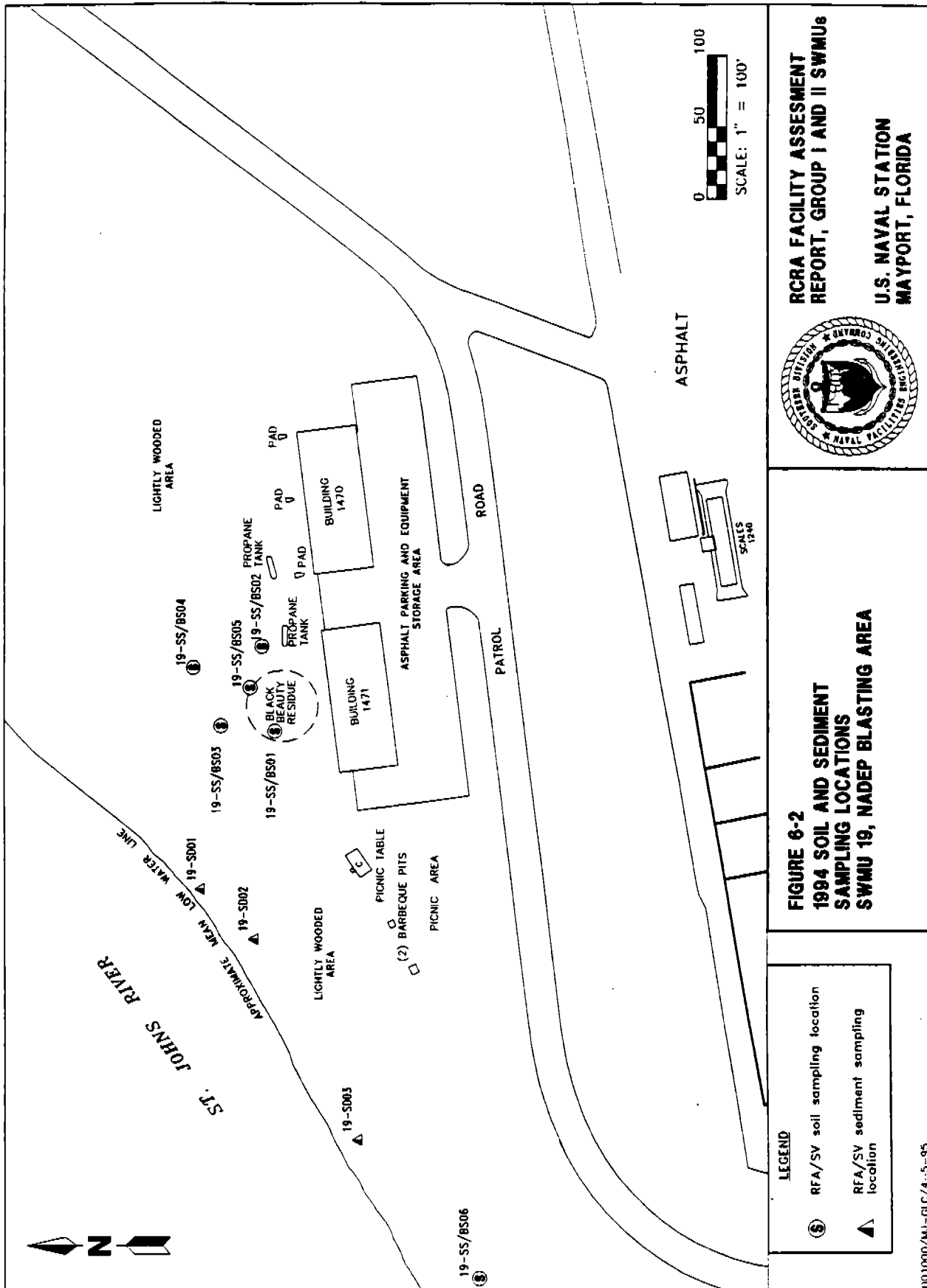
Because many field activities are common to all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 19 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Surface water and sediment sampling procedures and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).

Soil Sample Collection Procedure. Surface and subsurface soil sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Soil Sampling, of the GIR (ABB-ES, 1995b).

Sediment Sample Collection Procedure. Sediment sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991) and Subsection 2.1.3, Surface Water, Sediment, and Sludge Sampling, located in the GIR (ABB-ES, 1995b).

Laboratory Analyses. Surface and subsurface soil and sediment samples were analyzed for the same target analytes including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list presented in Appendix IX, 40 CFR 264, and USEPA Contract Laboratory Program target compound list and target analyte list. The environmental samples were analyzed using methods from Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW 846) (USEPA, 1986). A sample of the Black Beauty™ abrasive blasting media was collected for analysis by TCLP (USEPA Method 1311). A list of the target analytes is provided in Appendix A and complete analytical results are provided in Appendix B.

**6.3 FINDINGS.** The following presents analytical results for surface and subsurface soil samples, sediment samples, and the Black Beauty™ abrasive blasting media.



Surface and Subsurface Soil Sample Analytical Results. Tables 6-2 and 6-3 summarize the validated analytical results for organic and inorganic target analytes, respectively, detected in surface and subsurface soil samples collected at SWMU 19. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Tables 6-4 and 6-5 for surface and subsurface soil samples, respectively. Bench mark comparison values consist of background screening values computed from station wide surface and subsurface soil samples (ABB-ES, 1995b), the USEPA soil screening guidance values (USEPA, 1994), USEPA Region III RBC (USEPA, 1995), and the State of Florida cleanup goals (FDEP, 1995). The state of Florida cleanup goals consisted of residential values for surface soil and industrial worker values for subsurface soil.

Each of the bench mark criteria provided in Tables 6-4 and 6-5 are human health based and represent the lower of either a noncarcinogenic HI of 1, where values of less than 1 represent a concentration where noncarcinogenic effects are not likely, or a lifetime excess cancer risk of  $10^{-6}$ , which represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure. The concentrations listed for the USEPA Region III RBCs correspond to an HI of 0.1, whereas the USEPA Superfund SSLs and the State of Florida cleanup goals are based on an HI of 1. The NCP (40 CFR, Part 300) states that for carcinogens a lifetime excess cancer risk in the range of  $10^{-4}$  (a chance of 1 in 10,000 for an adverse carcinogenic effect for a continuous lifetime exposure) to  $10^{-6}$  represents concentrations that are considered by USEPA to be protective of human health.

Surface Soil. The surface soil at SWMU 19 typically consists of sands with shell fragments. Target analytes detected in the surface soil samples consist of 2 SVOCs (benzo(b)fluoranthene and bis(2-ethylhexyl)phthalate), 2 pesticides (4,4'-DDT and 4,4'-DDE), and 11 inorganics (arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, vanadium, and zinc) (see Tables 6-2 and 6-3). VOCs and PCBs were not detected in the surface soil samples.

Subsurface Soil. Target analytes detected in the subsurface soil samples consist of 1 VOC (trichloroethene), 3 pesticides (chlorobenzilate, endrin ketone, and 4,4'-DDD), and 10 inorganics (arsenic, barium, beryllium, chromium, copper, lead, selenium, vanadium, zinc, and cyanide) (see Tables 6-2 and 6-3). SVOCs and PCBs were not detected in the subsurface soil samples.

Sediment Sample Analytical Results. Table 6-6 summarizes the validated analytical results for inorganic target analytes detected in sediment samples collected at SWMU 19. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 6-7. Bench mark comparison values for the SWMU 19 sediment samples consist of station wide background sediment samples (ABB-ES, 1995b), ER-L and ER-M values from *The Potential for Biological Effects of Sediment-sorbed Contaminants Tested in the National Status and Trends Program*, NOAA (Long and others, 1993), and TEL and PEL from *Approach to the Assessment of Sediment Quality in Florida Coastal Waters*, (McDonald, 1994).

Target analytes detected in the sediment samples consist of nine inorganics (arsenic, barium, beryllium, chromium, copper, lead, vanadium, zinc, and

**Table 6-2**  
**Organic Analytes Detected in Soil Samples at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8271		R8271		R8271		R8271	
Sample Location:	MPT-19-SS01		MPT-19-SS03		MPT-19-SS05		MPT-19-SS06	
Sample No.:	19SS001Dup		19SS003		19SS005		19SS006	
Date Sampled:	06/30/94		06/30/94		06/30/94		06/30/94	
Sample depth (ft bls):	0 to 1		0 to 1		0 to 1		0 to 1	
Common Name	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
<b>VOCs, Soil (<math>\mu\text{g/kg}</math>)</b>								
Trichloroethene	--		--		--		--	
<b>SVOCs, Soil (<math>\mu\text{g/kg}</math>)</b>								
Benzo(b)fluoranthene	--		79	J	--		--	
bis(2-Ethylhexyl)phthalate	72	J	--		--		--	
<b>Pesticides, Soil (<math>\mu\text{g/kg}</math>)</b>								
Chlorobenzilate	--		--		--		--	
Endrin ketone	--		--		--		--	
4,4'-DDT	--		--		3.3	J	3.4	J
4,4'-DDE					2.2	J	1.3	J
4,4'-DDD	--		--		--		--	
See notes at end of table.								

**Table 6-2 (Continued)**  
**Organic Analytes Detected in Soil Samples at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8271		R8271		R8271	
Sample Location:	MPT-19-BS01		MPT-19-BS01		MPT-19-BS04	
Sample No.:	19BS001		19BS001Dup		19BS004	
Date Sampled:	06/30/94		06/30/94		06/30/94	
Sample depth (ft bls):	2 to 3		2 to 3		2 to 3	
Common Name	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
<b>VOCs, Soil, (<math>\mu\text{g/kg}</math>)</b>						
Trichloroethene	-		-		2	J
<b>SVOCs, Soil, (<math>\mu\text{g/kg}</math>)</b>						
Benzo(b)fluoranthene	-		-		-	
bis(2-Ethylhexyl)phthalate	-		-		-	
<b>Pesticides, Soil, (<math>\mu\text{g/kg}</math>)</b>						
Chlorobenzilate	-		-		34	J
Endrin ketone	-		16		-	
4,4'-DDT	-		-		-	
4,4'-DDE	-		-		-	
4,4'-DDD	2.5		7.6	J	-	
<p>Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  Suffix Dup = identifies the duplicate of the corresponding environmental sample.</p> <p>ft bls = sample collection depth in feet below land surface.  Conc. = concentration.  Qual. = qualifier.  VOCs = volatile organic compounds.  <math>\mu\text{g/kg}</math> = milligrams per kilogram.  - = analyte not detected.  SVOCs = semivolatile organic compounds.  "J" = estimated value.</p>						

**Table 6-3**  
**Inorganic Analytes Detected in Soil Samples at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.: Sample Location: Sample No.: Date Sampled: Sample depth (ft bis):	R8271		R8271		R8271		R8271		R8271		R8271		R8271		R8271	
	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
MPT-19-SS01																
19SS001																
06/30/94																
0 to 1																
Soil (mg/kg)																
Common Name																
Arsenic	0.58	J	0.5	J	0.88	J	0.56	J	0.5	J	0.39	J	1.2	J	0.39	J
Barium	23.7	J	7.8	J	4.8	J	2.5	J	2.0	J	1.8	J	13.2	J	1.8	J
Beryllium	0.4	J	0.09	J	0.08	J	0.7	J	--	J	--	J	0.26	J	--	J
Cadmium	0.38	J	1.0	J	0.22	J	--	J	--	J	--	J	--	J	0.22	J
Chromium	15.8	J	5.0	J	1.6	J	2.5	J	2.3	J	2.1	J	5.0	J	2.1	J
Copper	9.7	J	5.3	J	2.9	J	2.3	J	1.8	J	1.3	J	2.7	J	1.3	J
Lead	11.4	J	4.2	J	1.1	J	1.6	J	1.2	J	1.5	J	2.7	J	1.5	J
Nickel	4.0	J	--	J	--	J	--	J	--	J	--	J	1.9	J	--	J
Selenium	0.14	J	--	J	--	J	--	J	--	J	--	J	--	J	--	J
Vanadium	7.8	J	3.0	J	3.8	J	1.5	J	1.4	J	1.2	J	7.3	J	1.2	J
Zinc	32.6	J	10.8	J	3.8	J	4.0	J	4.9	J	5.1	J	8.7	J	5.1	J
Cyanide	--		--		--		--		--		--		--		--	

See notes at end of table.

**Table 6-3 (Continued)**  
**Inorganic Analytes Detected in Soil Samples at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.: Sample Location: Sample No.: Date Sampled:	R8271		R8271		R8271		R8271		R8271		R8271		R8271	
	MPT-19-BS01	Qual.	MPT-19-BS01Dup	Qual.	MPT-19-BS02	Qual.	MPT-19-BS03	Qual.	MPT-19-BS04	Qual.	MPT-19-BS05	Qual.	MPT-19-BS06	Qual.
19BS001														
06/30/94														
2 to 3														
Soil (mg/kg) Common Name	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Arsenic	0.64	J	0.72	J	1.6	J	1.0	J	1.3	J	0.72	J	0.65	J
Barium	2.0	J	1.6	J	2.6	J	2.0	J	2.1	J	2.5	J	5.3	J
Beryllium	0.7	J	0.7	J	--		--		--		0.7	J	0.12	J
Cadmium	--		--		--		--		--		--		--	
Chromium	2.3		2.0	J	2.3		1.8	J	2.5		2.9		5.7	
Copper	1.0	J	0.83	J	1.3	J	1.1	J	0.9	J	0.8	J	0.77	J
Lead	1.1		0.92		3.5	N	0.75		0.84	N	1.0		3.1	
Nickel	--		--		--		--		--		--		--	
Selenium	--		--		0.13	J	--		--		--		--	
Vanadium	1.7	J	1.2	J	3.1	J	1.8	J	2.1	J	1.9	J	2.7	J
Zinc	--		--		8.4		--		7.9		--		--	
Cyanide	0.21	J	--		--		--		--		--		--	

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = identifies the duplicate of the corresponding environmental sample.

ft bis = sample collection depth in feet below land surface.  
mg/kg = milligrams per kilogram.  
Conc. = concentration.  
Qual. = qualifier.  
"J" = estimated value.  
-- = analyte not detected.



**Table 6-4**  
**Chemicals of Potential Concern in Surface Soils at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup> (*)	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b><u>Volatiles (µg/kg)</u></b>										
No Analytes Detected										
<b><u>Semivolatiles (µg/kg)</u></b>										
Benzo(b)fluoranthene	1/5	680 to 690	79	79	ND	880	900	1,400	No	S, P, G
bis(2-Ethylhexyl)phthalate	1/5	340 to 690	206*	206	ND	46,000	46,000	45,000	No	S, P, G
<b><u>Pesticides/PCBs (µg/kg)</u></b>										
4,4'-DDE	1/5	0.69 to 0.7	3.3	3.3	2.3	1,900	2,000	2,900	No	S, P, G
4,4'-DDT	1/5	1.3 to 1.4	2.2	2.2	ND	1,900	2,000	3,100	No	S, P, G
<b><u>Inorganics (mg/kg)</u></b>										
Arsenic	5/5	NR	0.5 to 1.2	0.74	ND	90.37	0.4	90.7	Yes	
Barium	5/5	NR	2 to 15.75*	7.7	5.6	550	5,500	5,000	No	S, P, G
Beryllium	4/5	0.06 to 0.06	0.07 to 0.26	0.16	0.16	0.15	0.1	0.1	Yes	
Cadmium	2/5	0.21 to 0.21	0.22 to 0.69*	0.45	2	3.9	39	37	No	B
Chromium	5/5	NR	1.6 to 10.4*	4.4	2.6	90.39	90.390	90.150	No	S, P, G
Copper	5/5	NR	1.8 to 7.5*	3.4	2.2	290	NA	2,900	No	S, G
Lead	5/5	NR	1.1 to 7.8*	2.9	ND	90.400	90.400	90.500	No	S, P, G
Nickel	2/5	0.6 to 1.2	1.9 to 2.3*	2.1	ND	160	1,600	1,500	No	S, P, G
Selenium	1/5	0.06 to 0.13	0.1*	0.1	1.36	39	390	390	No	B
Vanadium	5/5	NR	1.4 to 7.3	3.9	4	55	550	480	No	S, P, G
Zinc	5/5	NR	3.8 to 21.7*	2.6	2.6	2,300	23,000	23,000	No	S, P, G

See notes on next page.

**Table 6-4 (Continued)**  
**Chemicals of Potential Concern in Surface Soils at SWMU19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

- 1 Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- 2 Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- 3 The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "LJ" qualifiers) and rejected ("R" qualifier).
- 4 The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- 5 For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- 6 Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- 7 Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the aggregate resident based on a cancer risk of  $10^{-6}$  and the child resident based on a hazard quotient of 1.
- 8 Analytes were included or excluded from the risk assessment for the following reasons:  
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- 9 The value is based on arsenic as a carcinogen.
- 10 The value is based on chromium hexavalent form.
- 11 USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 19SS01, 19SS02, 19SS03, 19SS04, and 19SS05.

Sample duplicates: 19SS01D.

Background sample locations include: MPT-B-SS1; MPT-B-SS2; MPT-B-SS3; MPT-B-SS4; MPT-B-SS5; and MPT-B-SS6.

Duplicate background sample locations include: MPT-B-SS1DUP.

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

$\mu\text{g}/\text{kg}$  = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

DDE = dichlorodiphenyldichloroethene.

DDT = dichlorodiphenyltrichloroethane.

$\text{mg}/\text{kg}$  = milligrams per kilograms.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

**Table 6-5**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>(*)2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Trichloroethene	1/5	5 to 6	2	2	ND	58,000	58,000	4,800	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Chlorobenzilate	1/5	21 to 24	34	34	ND	2,400	NA	NA	No	S
<b>Pesticides/PCBs (µg/kg)</b>										
4,4'-DDD	1/5	1.4 to 1.6	5.05*	5.1	ND	2,700	3,000	17,000	No	S, P, G
Endrin ketone	1/5	0.7 to 1.6	8.35*	8.4	ND	NA	NA	NA	No	F
<b>Inorganics (mg/kg)</b>										
Arsenic	5/5	NR	0.68* to 1.6	1.1	0.9	90.37	0.4	3	No	G
Barium	5/5	NR	1.8* to 2.6	2.2	7.2	550	5,500	74,000	No	B
Beryllium	2/5	0.06 to 0.08	0.07*	0.07	0.14	0.15	0.1	0.2	No	B
Chromium	5/5	NR	1.8 to 2.9	2.3	3.4	1039	10390	10220	No	B
Copper	5/5	NR	0.8 to 1.3	1	3.6	290	NA	72,000	No	B
Lead	3/5	0.6 to 0.6	0.75 to 1.01*	0.92	2.8	11400	11400	1,000	No	B
Selenium	1/5	0.13 to 0.15	0.13	0.13	ND	39	390	9,900	No	S, P, G
Vanadium	5/5	NR	1.45* to 3.1	2.1	3.2	55	550	4,800	No	B
Zinc	2/5	4.35 to 6.4	7.9 to 8.4	8.2	4.8	2,300	23,000	550,000	No	S, P, G
Cyanide	1/5	0.075 to 0.17	0.1425*	0.14	0.66	160	1,600	40,000	No	B

See notes on next page.

**Table 6-5 (Continued)**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 19**

Groups I and II RFA SV  
U.S. Naval Station  
Mayport, Florida

- 1 Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- 2 Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- 3 The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J". It does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).
- 4 The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- 5 For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- 6 Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- 7 Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the industrial worker based on a cancer risk of  $10^{-6}$  and the child resident based on a hazard quotient of 1.
- 8 Analytes were included or excluded from the risk assessment for the following reasons:  
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- 9 The value is based on arsenic as a carcinogen.
- 10 The value is based on chromium hexavalent form.
- 11 The value is based on chromium hexavalent form.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 19BS001, 19BS002, 19BS003, 19BS004, and 19BS005.

Duplicate sample: 19BS001D.

Background sample locations include: MPT-B-B51; MPT-B-B54; MPT-B-B55; and MPT-B-B56.

Duplicate background sample locations include: MPT-B-B51DUP.

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

µg/kg = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

DDD = dichlorodiphenyldichloroethane.

mg/kg = milligrams per kilograms.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

cyanide). VOCs, SVOCs, pesticides, and PCBs were not detected in the sediment samples (Table 6-6).

Black Beauty™ Blasting Media. Samples of the Black Beauty™ abrasive blasting media were collected to assess whether the material could be characterized as hazardous using the TCLP analysis (Table 6-8). Concentrations of barium, cadmium, and chromium were detected in the extracts. The results indicate that the Black Beauty™ does not meet the definition of a RCRA-characteristic hazardous waste.

**6.4 PRELIMINARY RISK EVALUATION.** The following presents an assessment of the surface soil, subsurface soil, and sediment samples collected at SWMU 19 with station wide background samples and bench mark values.

Surface Soil Samples. None of the SVOCs or pesticides detected in the surface soil samples exceeded the bench mark values. Two of the inorganic analytes, arsenic and beryllium, were detected in surface soil samples at concentrations that exceed bench mark values, which are based on a lifetime excess cancer risk of  $10^{-6}$  (Table 6-4).

Arsenic was not detected in the background surface soil samples. The five surface soil samples and the duplicate collected at SWMU 19 and the reference sample (MPT-19-SS06) contained arsenic at concentrations that exceeded the USEPA Region III RBC (0.37 mg/kg) (Figure 6-2). The five soil samples and duplicate collected at SWMU 19 also contained arsenic at concentrations that exceeded the proposed Superfund SSL (0.4 mg/kg). The concentration of arsenic in the reference sample was less than this bench mark. Two samples contained arsenic at concentrations that exceed the FDEP cleanup goal (0.7 mg/kg).

Three samples contained beryllium at a concentration that exceeded the background screening value (0.16 mg/kg). Beryllium was not detected in the reference sample (MPT-19-SS06). Three samples contained beryllium at concentrations that exceed the USEPA Region III RBC (0.15 mg/kg) and the proposed Superfund SSL and the Florida cleanup goal of 0.1 mg/kg. The surface soil background screening value for beryllium also exceeds the bench mark values.

Subsurface Soil Samples. None of the VOCs, SVOCs, pesticides, or inorganics detected in the subsurface soil samples exceeded the bench mark values.

Sediment Samples. None of the eight inorganic analytes (arsenic, barium, beryllium, chromium, copper, lead, vanadium, and zinc) detected in the two sediment samples collected near SWMU 19 exceeded background screening values. The reference sample (MPT-19-SD03) contained concentrations of cyanide in addition to these analytes and did not contain beryllium.

**Table 6-6**  
**Inorganic Analytes Detected in Sediment Samples at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:	R8271		R8271		R8271		R8271	
Sample Location:	MPT-19-SD01		MPT-19-SD01		MPT-19-SD02		MPT-19-SD03	
Sample No.:	19SD001		19SD001Dup		19SD002		19SD003	
Date Sampled:	06/30/94		06/30/94		06/30/94		06/30/94	
Sediment (mg/kg)	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
Common Name								
Arsenic	1.4	J	1.1	J	1.4	J	1.5	J
Barium	6.0	J	5.8	J	4.4	J	2.6	J
Beryllium	0.11	J	0.1	J	-		-	
Chromium	1.3	J	1.2	J	-		1.8	J
Copper	0.6	J	0.95	J	0.42	J	0.6	J
Lead	1.0		0.76		0.52	J	0.78	
Vanadium	2.8	J	2.3	J	1.8	J	1.6	J
Zinc	9.2	J	-		5.3	J	6.8	J
Cyanide	-		-		-		0.18	J

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
Suffix Dup = identifies the duplicate of the corresponding environmental sample.

Conc. = concentration.  
Qual. = qualifier.  
mg/kg = milligrams per kilogram.  
"J" = estimated value.  
-- = analyte not detected.

**Table 6-7**  
**Chemicals of Potential Concern in Sediment Sample at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>(*)2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Long and Others		MacDonald		Analyte CPC (YES/NO)	Reason <sup>5</sup>
						ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	PEL <sup>8</sup>		
<b>Volatiles (µg/kg)</b>											
No Analytes Detected											
<b>Semivolatiles (µg/kg)</b>											
No Analytes Detected											
<b>Pesticides/PCBs (µg/kg)</b>											
No Analytes Detected											
<b>Inorganics (mg/kg)</b>											
Arsenic	2/2	NR	1.25* to 1.4	1.3	5.4	8.2	70	7.24	41.6	No	B
Barium	2/2	NR	4.4 to 5.9*	5.2	14.6	NA	NA	NA	NA	No	B
Beryllium	1/2	0.07 to 0.07	0.105*	0.11	0.54	NA	NA	NA	NA	No	B
Chromium	1/2	0.61 to 0.61	1.3*	1.3	15.2	81	370	52.3	160	No	B
Copper	2/2	NR	0.42 to 0.775*	0.6	6.8	34	270	18.7	108	No	B
Lead	2/2	NR	0.52 to 0.88*	0.7	9.2	46.7	218	30.2	112	No	B
Vanadium	2/2	NR	1.8 to 2.55*	2.2	14.8	NA	NA	NA	NA	No	B
Zinc	2/2	2.95 to 2.95	5.3 to 6.075*	5.7	25.8	150	410	124	271	No	B
See notes on next page.											

**Table 6-7 (Continued)**  
**Chemicals of Potential Concern in Sediment Sample at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Long and Others		MacDonald		Analyte CPC (YES/NO)	Reason <sup>5</sup>
						ER-L <sup>5</sup>	ER-M <sup>6</sup>	TEL <sup>7</sup>	PEL <sup>8</sup>		

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "JJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> Effects range-low (ER-L) value represents a concentration intended to estimate conditions in which effects would be rarely observed. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and other, National Oceanic and Atmospheric Administration, 1993.
- <sup>6</sup> Effects range-median (ER-M) represents the concentration where effects would occasionally occur. Source: "Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments" by Long and other, National Oceanic and Atmospheric Administration, 1993.
- <sup>7</sup> Threshold Effects Level (TEL) is a concentration at which no effects have been observed in any test species or biological community. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters" MacDonald, November 1994.
- <sup>8</sup> Probable Effects Level (PEL) is the lower concentration limits at which adverse effects may first be observed. Source: "Approach to the Assessment of Sediment Quality in Florida Coastal Waters" MacDonald, November 1994.
- <sup>9</sup> Analytes were excluded from the risk assessment for the following reasons:  
 B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations listed below (for inorganic compounds only).  
 L = the maximum detected concentration did not exceed the effects range-low (ER-L).  
 M = the maximum detected concentration did not exceed the effects range-median (ER-M).  
 N = the maximum detected concentration did not exceed the Threshold Effects Level (TEL).  
 P = the maximum detected concentration did not exceed the Probable Effects Level (PEL).

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 19SD001, 19SD002

Duplicate sample: 19SD001D

Background sample locations include: MPT-B-SD1, MPT-B-SD2, MPT-B-SD3 MPT-B-SD4, MPT-B-SD5, MPT-B-SD6, MPT-B-SD7, and 00SD001

Duplicate background sample locations include: MPT-B-SD-3D, MPTBSD7D

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

µg/kg = micrograms per kilograms.

PCBs = polychlorinated biphenyls.

mg/kg = milligrams per kilograms.

NR = not reported; analyte detected in each sample; reporting limits are same as range of detected concentrations.

NA = not available.



**Table 6-8**  
**Toxicity Characteristic Leaching Procedure Testing of Black Beauty™ at SWMU 19**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Sample Identification:	MPT-19-Z001	MPT-19-Z002	MPT-19-Z003	Toxicity Characteristic Limits (40 CFR 261.24)	Analytical Reporting Limit
Date Sampled:	6/30/94	6/30/94	6/30/94		
Arsenic	<0.015	<0.015	<0.015	5.0	0.015
Barium	0.68	0.76	0.65	100.0	0.001
Cadmium	0.0077	0.013	0.0021	1.0	0.001
Chromium	0.027	0.011	0.0072	5.0	0.003
Lead	<0.025	<0.025	<0.025	5.0	0.025
Mercury	<0.0002	<0.0002	<0.0002	0.20	0.0002
Selenium	<0.035	<0.035	<0.035	1.00	0.035
Silver	<0.002	<0.002	<0.002	5.0	0.002
Notes: Result is milligrams per liter (mg/l) in extract. CFR = Code of Federal Regulations.					

## 6.5 CONCLUSIONS AND RECOMMENDATIONS.

### 6.5.1 Conclusions

Surface Soil Samples. Target analytes detected in the surface soil samples consist of 2 SVOCs, 2 pesticides, and 11 inorganics (see Tables 6-2 and 6-3). VOCs and PCBs were not detected in the surface soil samples.

None of the SVOCs or pesticides detected in the surface soil samples exceeded the bench mark values. Two of the inorganic analytes, arsenic and beryllium, were detected in surface soil samples at concentrations that exceed bench mark values, which are based on a lifetime excess cancer risk of  $10^{-6}$  (Table 6-4).

Concentrations of arsenic and beryllium exceeded human health based risk bench mark values which represent a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with observed concentrations of arsenic and beryllium is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300) (see Table C-4, Appendix C).

Subsurface Soil. Target analytes detected in the subsurface soil samples consist of 1 VOC, 3 pesticides, and 10 inorganics (see Tables 6-2 and 6-3). SVOCs and PCBs were not detected in the subsurface soil samples.

None of the VOCs, pesticides or inorganics detected in the subsurface soil samples exceeded the bench mark values.

Black Beauty™ Blasting Media. The TCLP results indicate that the Black Beauty™ does not meet the definition of an RCRA-characteristic hazardous waste (40 CFR 261.24).

Sediment. None of the eight inorganic analytes detected in the two sediment samples collected near SWMU 19 exceeded background screening values. The results of the reference sample are comparable to the two sediment samples collected near SWMU 19. These analytical results suggest that the presence of the Black Beauty™ near the shoreline has not contributed to the inorganic constituents detected in these samples.

6.5.2 Recommendations SWMU 19 is recommended for no further investigation at this time based on the following rationale.

- No VOCs or PCBs were detected in the surface soil samples.
- None of the SVOCs (benzo(b)fluoranthene and bis(2-ethylhexyl)phthalate) or pesticides (4,4'-DDT and 4,4'-DDE) detected in the surface soil samples exceeded the bench mark values.
- Concentration of arsenic and beryllium detected in surface soil samples exceeded human health based risk bench mark values, which represent a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with observed concentrations of arsenic and beryllium is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300).
- SVOCs and PCBs were not detected in the subsurface soil samples.

- None of the VOCs, pesticides or inorganics detected in the subsurface soil samples exceeded the bench mark values.
- Analytical results indicate that the Black Beauty™ does not meet the definition of an RCRA-characteristic hazardous waste.
- None of the eight inorganic analytes (arsenic, barium, beryllium, chromium, copper, lead, vanadium, and zinc) detected in the two sediment samples collected near SWMU 19 exceeded background screening values.
- A non-time-critical removal action is planned in 1995 or 1996 to excavate and remove the Black Beauty™.
- The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely overstate the specific exposure present at the site (i.e., underestimate the concentration that would result in a lifetime excess cancer risk of  $10^{-6}$ ). Because the chemicals were detected in only one or two media (i.e., soil and or groundwater) all of the exposure pathways and assumptions used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in a lower excess cancer risk than  $10^{-6}$ .

## 7.0 SWMU 28, DEFENSE REUTILIZATION AND MARKETING OFFICE (DRMO) YARD

7.1 SITE DESCRIPTION AND BACKGROUND. The DRMO Storage Area (SWMU 28) is located in the northern part of NAVSTA Mayport on an abandoned asphalt runway, south of the former Oily Waste Pit (SWMU 6) and the Oily Waste Treatment Plant (OWTP) sludge drying beds (SWMU 7). The storage area is located on an abandoned runway approximately 1,300 feet long and 150 feet wide, oriented west to east parallel to the St. Johns River, and an area of runway that extends to the south approximately 800 feet from the west end of the SWMU. The entire DRMO area is fenced.

The DRMO Yard covers a large area (315,000 square feet); therefore, it was divided into three separate sections for descriptive purposes. The first two sections are located along the east-west runway, which is 1,300 feet long and 150 feet wide (195,000 square feet). Section 1 of SWMU 28 is 650 feet long and 150 feet wide and consists of the western half (97,500 square feet) of the abandoned east-west runway. Section 1 also contains a storage yard. SWMU 19 is located to the north of this section (Figure 7-1). Section 2 is 650 feet long and 150 feet wide and consists of the eastern half of the abandoned east-west runway and is also 97,500 square feet. SWMUs 6 and 7 are located to the north of this section (Figure 1-4). Section 3 of SWMU 28 is the rectangular area that extends at an angle to the southeast, 800 feet from the west end of the runway. The total area of Section 3 is 120,000 square feet. Formerly, Sections 1, 2, and 3 were used to store scrap metal and other items. Currently, Sections 1 and 3 are in the DRMO Yard and Section 2 is a parking area.

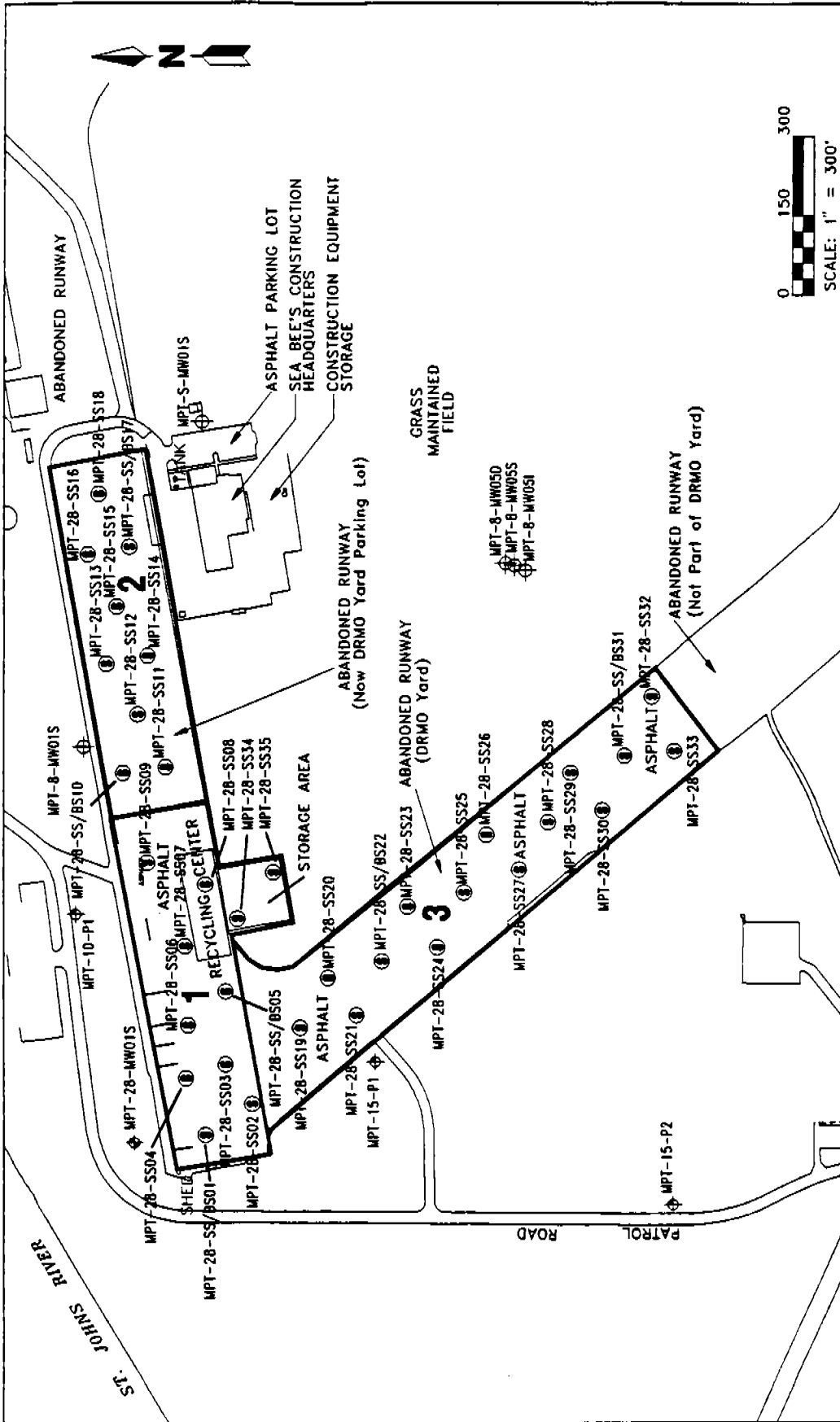
SWMU 28 is used for staging scrap metal and other items turned in to the DRMO for salvage. The area has been in use since 1967 and items stored there that may have leaked or spilled include transformers (oils and PCBs), paints (lead), and solvents (chlorinated and non-chlorinated). At the time of the VSI, vegetation was noted to be growing through the asphalt (A. T. Kearney, 1989).

SWMU 28 was identified as NIRP Site 10 in the IAS, in which it was estimated that less than 200 gallons of liquid had been spilled in the area (ESE, 1986). The RFA (A. T. Kearney, 1989) recommended that soil samples be collected in the vicinity of the runway pad, based on the inventory of materials stored at and possibly spilled in the area.

7.2 RFA SV FIELD INVESTIGATIONS. RFA SV field investigations at SWMU 28 included collection of surface soil, subsurface soil, and groundwater samples. Soil sampling was conducted from August 5 through August 10, 1994. Groundwater sampling occurred in June and August 1994.

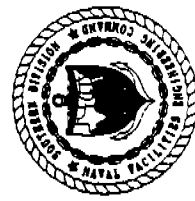
Soil and groundwater sampling was conducted in the vicinity of the abandoned runway pad to assess the release of hazardous constituents at the site. The objectives of the data gathering activities at SWMU 28 were to obtain surface soil, subsurface soil, and groundwater samples to evaluate these media as potential exposure pathways.

The soil sampling program at SWMU 28 included collection of surface and subsurface soil samples within the DRMO Yard (Figure 7-1). Nine surface soil samples were collected at both Section 1 (MPT-28-SS01 through MPT-28-SS09) and



- LEGEND**
- Existing RFI monitoring well location
  - Existing piezometer location
  - RFI monitoring well location
  - RFI sample location
  - Approximate SWMU section area

**FIGURE 7-1**  
**1994 SOIL AND GROUNDWATER**  
**SAMPLING LOCATIONS**  
**SWMU 28, DRMO YARD**



**RCRA FACILITY ASSESSMENT**  
**REPORT, GROUP I AND II SWMUs**  
**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**

Section 2 (MPT-28-SS10 through MPT-28-18). Fifteen surface soil samples were collected in Section 3 (MPT-28-SS19 through MPT-28-SS33). Two surface soil samples were collected in the storage area behind the recycling center on the south side of Section 1 (MPT-28-SS34 and MPT-28-SS35).

The surface soil samples were located in a staggered triangular pattern to achieve the most effective coverage of the DRMO Yard. Surface soil sample locations were chosen to bias the sampling toward areas most likely to be contaminated based on existing site knowledge. Some sample locations were adjusted within a radius of approximately 30 feet from the proposed location to areas evidenced by staining or asphalt cracking noted at the time of sampling.

Two subsurface soil samples were collected from each of the three sections in the DRMO yard. Subsurface samples were collected from the following locations:

- Section 1, samples MPT-28-BS01 and MPT-28-BS05;
- Section 2, samples MPT-28-BS10 and MPT-28-BS17; and
- Section 3, samples MPT-28-BS22 and MPT-28-BS31 (Figure 7-1).

The locations of the subsurface soil samples were selected based on two criteria. One subsurface soil sample location was selected based on screening each surface soil sample with an organic vapor analyzer (OVA). Within each section, the location of the surface soil sample with the highest OVA measurement was selected for collecting the subsurface soil sample. The other subsurface soil sample location was selected in the area with the most surface soil staining. If either of these conditions were not met, one sample was collected from the center of the sampling area and one sample was collected from an area that exhibited pavement deterioration or cracking.

At each of the subsurface soil sample locations, a boring was augered by hand from the land surface to the water table and samples were collected at discrete 2-foot intervals. An OVA was used to screen each subsurface soil sample. The sample with the highest OVA measurement was selected for laboratory analyses. When organic vapors were not detected, the sample was collected from 3 to 4 feet bls with the exception of sample 28BS00106, which was collected from 5 to 6 feet bls because the groundwater table was deeper at this location than at the other locations.

Groundwater samples were collected from three monitoring wells and two piezometers located near SWMU 28 (Figure 7-1). Piezometers are installed and constructed the same as shallow monitoring wells. These wells included monitoring wells MPT-8-MW01S, MPT-8-MW05S, and MPT-28-MW01S, and piezometers MPT-10-P01 and MPT-15-P01. Monitoring well MPT-8-MW01S is located adjacent to SWMU 7, the OWTP Sludge Drying Beds, and was sampled previously during the RFI activities for SWMUs 6 and 7 (January 1993). Monitoring well MPT-8-MW05S is located in the maintained field between two of the runway sections, and is one of the station wide background monitoring wells. Monitoring well MPT-8-MW05S has been previously sampled (January 1993). Monitoring well MPT-28-MW01S and piezometers MPT-10-P01 and MPT-15-P01 were sampled for the first time during the 1994 RFA SV investigations.

Because many field activities are similar for all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the

NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 28 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Monitoring well installation, soil and groundwater sampling procedures, and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).

Soil Sample Collection Procedure. Surface and subsurface soil sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Soil Sampling, of the GIR (ABB-ES, 1995b).

Monitoring Well Installation Procedure. Drilling and well installation were accomplished as described in the NAVSTA Mayport RFI (ABB-ES, 1991), and Subsection 2.1.1, Monitoring Well and Piezometer Installation, of the GIR (ABB-ES, 1995b).

Groundwater Sample Collection Procedure. Groundwater sampling was accomplished as described in Subsection 2.1.4, Groundwater Sampling, of the GIR (ABB-ES, 1995b).

Laboratory Analyses. Soil and groundwater samples were analyzed for the same target analytes including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list contained in Appendix IX, 40 CFR 264, and USEPA Contract Laboratory Program target compound list and target analyte list. The environmental samples were analyzed using methods from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW 846) (USEPA, 1986). A list of the target analytes is provided in Appendix A and analytical results are provided in Appendix B.

7.3 FINDINGS. The following presents a brief description of the results of the RFA SV sampling activities at SWMU 28. The findings include site geologic and hydrogeologic conditions and results of the analyses of surface and subsurface soil samples and groundwater samples.

Site Geology Lithologic information in the vicinity of SWMU 28 is obtained from one soil boring drilled in June 1994 at SWMU 28 for the installation of a shallow monitoring well (monitoring well with screen placed across the water table) and four monitoring wells (MPT-8-MW01S, MPT-8-MW05S, MPT-10-P01, and MPT-15-P01) located near SWMU 28 (Figure 2-1). Boring logs are found in the GIR, Appendix A, Boring Logs (ABB-ES, 1995b).

Subsurface soils encountered during installation of other monitoring wells near SWMU 28 had minimal variation over the lateral distance between each location. The following is a description of the subsurface soils encountered at each of the five locations.

- Boring MPT-8-MW05S (located on the southeastern side of SWMU 28) encountered a sand from the land surface to the explored depth of approximately 15.0 feet. A 3-inch thick seam of organic rich sand was encountered at a depth of approximately 10.0 feet bls.
- Boring MPT-8-MW01S (northeastern side of SWMU 28) encountered sand from the land surface to an explored depth of approximately 17.0 feet.

- Boring MPT-10-P01 (north central side of SWMU 28) encountered sand from the land surface to an explored depth of approximately 15.0 feet.
- Boring MPT-15-P01 (western central side of SWMU 28) encountered sand from the land surface to an explored depth of approximately 15.0 feet.
- Boring MPT-28-MW01S (located near the northwestern corner of SWMU 28) encountered a silty sand to the explored depth of 18.5 feet bls. A 2-foot-thick layer of clayey sand was encountered at a depth of approximately 4.0 feet bls.

Geologic cross sections provided in the NAVSTA Mayport GIR (see Figures 3-5 and 3-6, ABB-ES, 1995b) depict subsurface geologic conditions in the vicinity of SWMU 28.

Site Hydrogeology. The groundwater levels at the SWMU 28 monitoring well and for other RFI and RFA SV sites at NAVSTA Mayport were measured within a 7-hour period on August 30, 1994. The depth to the groundwater level at each monitoring well location was measured relative to a notch or mark on the north side of each monitoring well surveyed to the NGVD of 1929 (commonly referred to as msl). The depths to groundwater measured at each monitoring well adjacent to SWMU 28 are provided in Table 7-1 and Appendix G has groundwater data for other monitoring wells in the vicinity of the site. Also shown on the table are values for the water level measurements relative to the NGVD datum. The elevation data were used to prepare a map of the potentiometric surface (lines that represent altitudes of equal height above the reference datum) of the water table zone of the surficial aquifer. The potentiometric surface map of the water table is used to infer that groundwater flow is from higher to lower altitudes in a direction perpendicular to the equipotential lines. Based on the equipotential lines shown on Figure 7-2, the groundwater flow direction at SWMU 28 is generally toward the northwest.

**Table 7-1**  
**Summary of SWMU 28 Water Level Data**

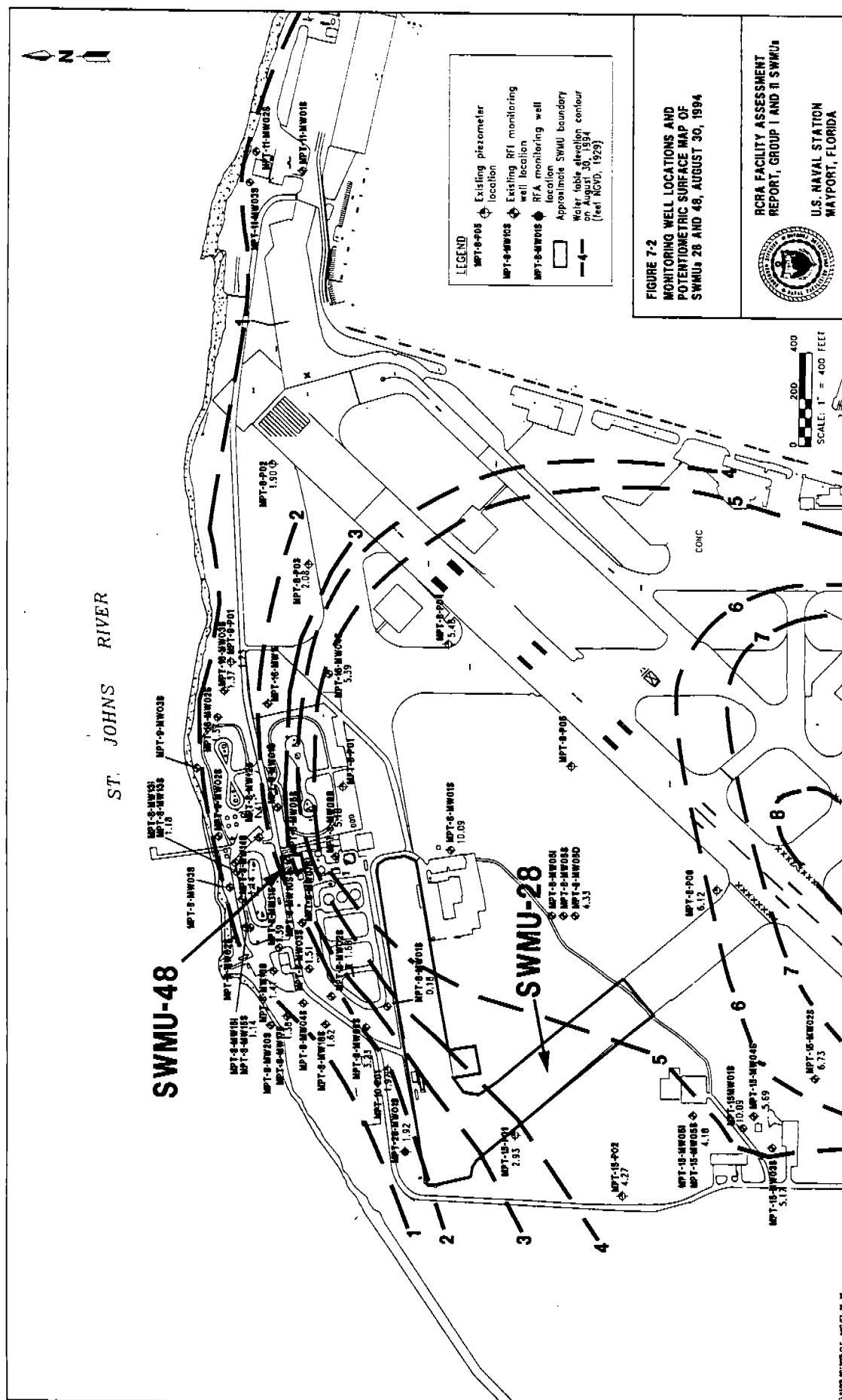
Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Well/Piezometer	Elev. (msl)	Water Level 08/30/94		
		Time (EST)	Depth (TOC)	Elev. (msl)
MPT-8-MW01S	10.19	12:03 p.m.	10.01	0.18
MPT-8-MW05S	13.00	10:07 a.m. <sup>1</sup>	8.67	4.33
MPT-10-P01	10.68	17:10 p.m.	8.71	1.97
MPT-15-P01	13.28	17:10 p.m.	9.45	3.83
MPT-28-MW01S	11.85	17:15 p.m.	9.93	1.92

<sup>1</sup> Water level recorded by a programmable electronic monitor.

Notes: SWMU = solid waste management unit.  
Elev. = elevation, National Geodetic Vertical Datum, 1929.  
msl = mean sea level.  
EST = Eastern Standard Time.  
TOC = top of casing as datum.





The hydraulic position of the monitoring wells relative to SWMU 28 also is based on the equipotential lines shown on Figure 7-2. Monitoring well MPT-8-MW05S is located hydraulically upgradient of SWMU 28 (Table 7-2). Piezometer MPT-15-P01 is along a similar hydraulic equipotential line as the western part of SWMU 28. Monitoring wells MPT-8-MW01S, MPT-10-P01S, and MPT-28-MW01S are located on a hydraulic downgradient side of SWMU 28.

An approximation of the horizontal linear velocity of groundwater flow in the water table zone of the surficial aquifer in the vicinity of SWMU 28 is based on the potentiometric surface (hydraulic gradient) of the water table, estimates of radial hydraulic conductivities at monitoring well locations, and an estimate of the porosity (ratio of the volume of voids to total volume of the soil) of the saturated subsurface soil. The horizontal linear velocity was calculated from a modified form of Darcy's equation and represents the ratio of linear travel distance to travel time between two points (Freeze and Cherry, 1979). The horizontal linear velocity is expressed as  $V_D/N_e$ , where  $V_D$  is the Darcy velocity ( $V_D = KI$ , where  $K$  is radial hydraulic conductivity and  $I$  is hydraulic gradient) and  $N_e$  is the effective porosity of the saturated geologic stratum. An effective porosity of 0.35 is used in calculations. (See Section 3.2.3, Physical Characteristics of Soil, in the NAVSTA Mayport GIR, ABB-ES, 1995b).

In-situ radial hydraulic conductivity values for monitoring wells in the vicinity of SWMU 28 are presented in Table 7-3. The range of in-situ radial hydraulic conductivity values in the vicinity of SWMU 28 are approximately 1.2 feet per day (MPT-8-MW05S) to 5.5 feet per day (MPT-15-P02). The hydraulic gradient is not uniform over SWMU 28 and a value of 0.006 ft/ft near the central part of SWMU 28 was used in the computation of the horizontal linear velocity. An approximation of the horizontal linear velocity of the groundwater ranges from approximately 0.02 to 0.09 foot per day.

Based on the values for horizontal linear velocity and assuming no dilution, dispersion, or retardation, a contaminant in the water table zone of the surficial aquifer may travel at rates of 7 to 34 feet per year (Table 7-3).

Surface and Subsurface Soil Analytical Results. Tables 7-4 and 7-5 summarize the validated analytical results for organic and inorganic target analytes, respectively, detected in surface soil samples collected at SWMU 28. Tables 7-6 and 7-7 summarize the validated analytical results for organic and inorganic target analytes detected in subsurface soil samples collected at SWMU 28. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Tables 7-8 and 7-9 for surface and subsurface soil samples, respectively. Bench mark comparison values consist of background screening values computed from station-wide surface and subsurface soil samples (ABB-ES, 1995b), the USEPA soil screening guidance values (USEPA, 1994), USEPA Region III RBC (USEPA, 1995) and the State of Florida cleanup goals (FDEP, 1995). The State of Florida cleanup goals consist of residential values for surface soil and industrial worker values for subsurface soil.

Each of the bench mark criteria provided in Tables 7-8 and 7-9 are human health based and represent the lower of either a noncarcinogenic HI where values of less than 1 represent a concentration where noncarcinogenic effects are not likely or a lifetime excess cancer risk of  $10^{-6}$ , which represents a chance of 1 in

**Table 7-2**  
**Summary of Monitoring Well Installations Near SWMU 28**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

SWMU Number	Monitoring Well No.	Hydraulic Position	Diameter (inches)	Total Depth (feet)	Screened Interval (ft bls)
8	MPT-8-MW01S	D	2	10	6 to 16
8	MPT-8-MW05S	U	2	10	5 to 15
10	MPT-10-P01	D	2	15	10 to 15
15	MPT-15-P01	S	2	15	10 to 15
28	MPT-28-MW01S	D	2	12.5	8 to 18

Notes: SWMU = solid waste management unit.  
ft bls = feet below land surface.  
D = Hydraulically downgradient from SWMU 28.  
U = Hydraulically upgradient from SWMU 28.  
S = Along a similar hydraulic gradient.

**Table 7-3**  
**Average Groundwater Velocities at SWMU 28**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Location	Estimated Effective Porosity	Radial Hydraulic Conductivity <sup>2</sup> (feet per day)	Hydraulic Gradient <sup>1</sup> (feet per foot)	Estimated Linear Velocity (feet per day)	Estimated Linear Velocity (feet per year)
MPT-8-MW05S	0.35	1.22	0.006	0.02	7
MPT-8-MW06S	0.35	1.82	0.006	0.03	11
MPT-15-P02S	0.35	5.52	0.006	0.09	34

<sup>1</sup> Based on estimated synoptic water table elevations on August 30, 1994

<sup>2</sup> Estimated from in-situ conductivity measurements conducted during February 1993.

**Table 7-4**  
**Organic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675	M7675	M7675	M7675	M7675	M7675	M7675	M7675	M7675	M7675
Sample Matrix:	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Sample Location:	MPT-28-SS01	MPT-28-SS02	MPT-28-SS02	MPT-28-SS03	MPT-28-SS04	MPT-28-SS05	MPT-28-SS06	MPT-28-SS07		
Sample Number:	28SS00101	28SS00201	28SS00201Dup	28SS00301	28SS00401	28SS00501	28SS00601	28SS00701		
Sample Date:	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94		
Sample Depth (ft bis):	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1		
<b>VOCs (µg/kg)</b>										
Methylene chloride	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	--	--	--	--	--	6	--	--	--	--
<b>SVOCs (µg/kg)</b>										
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	--	--	43 J	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	41 J	--	--	--	--	--	--	75 J
Fluoranthene	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	37 J	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--	--	--

See notes at end of table.

**Table 7-4 (Continued)**  
**Organic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7684 Surface Soil MPT-28-SS08	M7684 Surface Soil MPT-28-SS09	M7684 Surface Soil MPT-28-SS10	M7684 Surface Soil MPT-28-SS11	M7684 Surface Soil MPT-28-SS12	M7684 Surface Soil MPT-28-SS13	M7684 Surface Soil MPT-28-SS14	M7684 Surface Soil MPT-28-SS14 28SS01401Dup 06-AUG-94
Sample Matrix:	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
Sample Location:	10-AUG-94	05-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94
Sample Number:	28SS00801	28SS00901	28SS01001	28SS01101	28SS01201	28SS01301	28SS01401	28SS01401Dup
Sample Date:	10-AUG-94	05-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94
Sample Depth (ft bis):	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
<b>VOCs (µg/kg)</b>								
Methylene chloride	--	--	--	--	--	--	--	--
Acetone	--	97 J	--	--	--	--	--	--
Xylenes (total)	--	1 J	--	1 J	--	2 J	--	--
<b>SVOCs (µg/kg)</b>								
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	49 J	--	--	--	--
Pyrene	--	--	--	39 J	--	--	--	--
Butylbenzylphthalate	--	86 J	100 J	83 J	--	--	--	--
Benzo(a)anthracene	--	--	46 J	--	--	--	--	--
Chrysene	--	--	42 J	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	95 J	41 J	--	--	--	--
Di-n-octylphthalate	--	--	40 J	--	--	--	--	--
Benzo(b)fluoranthene	--	--	50 J	--	--	--	--	--
Benzo(k)fluoranthene	--	--	48 J	--	--	--	--	--
Benzo(a)pyrene	--	--	50 J	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	48 J	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	52 J	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	50 J	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--

See notes at end of table.

**Table 7-4 (Continued)**  
**Organic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7684 Surface Soil MPT-28-SS15 28SS01501 06-AUG-94 0 to 1	M7684 Surface Soil MPT-28-SS16 28SS01601 06-AUG-94 0 to 1	M7684 Surface Soil MPT-28-SS17 28SS01701 06-AUG-94 0 to 1	M7684 Surface Soil MPT-28-SS18 28SS01801 06-AUG-94 0 to 1	M7684 Surface Soil MPT-28-SS19 28SS01901 06-AUG-94 0 to 1	M7684 Surface Soil MPT-28-SS20 28SS02001 06-AUG-94 0 to 1	M7675 Surface Soil MPT-28-SS21 28SS02101 05-AUG-94 0 to 1	M7675 Surface Soil MPT-28-SS21 28SS02101 Dup 05-AUG-94 0 to 1
Sample Matrix:								
Sample Location:								
Sample Number:								
Sample Date:								
Sample Depth (ft bis):								
<b>VOCs (µg/kg)</b>								
Methylene chloride	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--
Xylenes (total)	--	--	2 J	--	--	--	--	--
<b>SVOC (µg/kg)</b>								
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	92 J	160 J	--	--	--	--	--	52 J
Fluoranthene	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	44 J
bis(2-Ethylhexyl)phthalate	37 J	--	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--

See notes at end of table.

**Table 7-4 Continued)**  
**Organic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675 Surface Soil MPT-28-SS22	M7675 Surface Soil MPT-28-SS23	M7675 Surface Soil MPT-28-SS24	M7675 Surface Soil MPT-28-SS25	M7675 Surface Soil MPT-28-SS26	M7675 Surface Soil MPT-28-SS27	M7675 Surface Soil MPT-28-SS28	M7675 Surface Soil MPT-28-SS29
Sample Matrix:	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
Sample Location:	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
Sample Number:	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
Sample Date:	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
Sample Depth (ft bis)	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
<b>VOCs (µg/kg)</b>								
Methylene chloride	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	110 J	--	--	--
Xylenes (total)	--	--	--	--	--	--	--	--
<b>SVOCs (µg/kg)</b>								
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	55 J
Diethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	62 J
Pyrene	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	89 J

See notes at end of table.

Table 7-4 (Continued)

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675	M7675	M7683	M7683	M7683	M7683	M7698	M7698
Sample Matrix:	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Sample Location:	MPT-28-SS30	MPT-28-SS30	MPT-28-SS31	MPT-28-SS32	MPT-28-SS33	MPT-28-SS34	MPT-28-SS34	MPT-28-SS35
Sample Number:	28SS03001	28SS03001Dup	28SS03101	28SS03201	28SS03301	28SS03401	28SS03501	28SS03501
Sample Date:	05-AUG-94	05-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	10-AUG-94	10-AUG-94	10-AUG-94
Sample Depth (ft bls)	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1
<b>VOCs (µg/kg)</b>								
Methylene chloride	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--
Xylenes (total)	--	--	--	--	--	--	--	--
<b>SVOCs (µg/kg)</b>								
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--

Notes: Suffix Dup = a duplicate sample to the corresponding environmental sample.  
 SWMU = solid waste management system.  
 ft bls = feet below land surface.  
 VOCs = volatile organic compounds.  
 µg/kg = micrograms per kilogram.

-- = analyte not detected.  
 SVOCs = semivolatile organic compounds.  
 "J" = estimated value.



**Table 7-5**  
**Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675	M7675	M7675	M7675	M7675	M7675	M7675	M7675	M7675
Sample Matrix:	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Sample Location:	MPT-28-SS01	MPT-28-SS02	MPT-28-SS02	MPT-28-SS03	MPT-28-SS04	MPT-28-SS05	MPT-28-SS06	MPT-28-SS07	
Sample Number:	28SS00101	28SS00201	28SS00201DUP	28SS00301	28SS00401	28SS00501	28SS00601	28SS00701	
Sample Date:	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	
Sample Depth (ft bis):	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
<b>Inorganics (mg/kg)</b>									
Antimony	--	--	--	--	--	--	--	--	--
Arsenic	0.74 J	0.85 J	1.6 J	1.2 J	0.61 J	1.6 J	0.79 J	1.5 J	
Barium	5 J	4.1 J	6.2 J	7.1 J	4 J	7.4 J	4.3 J	17.4 J	
Beryllium	--	0.06 J	0.28 J	0.08 J	0.09 J	0.13 J	0.05 J	0.14 J	
Chromium	2 J	2 J	2.4	3.6	2 J	3.5	1.8 J	3.6	
Cobalt	--	--	--	--	--	--	--	0.59 J	
Copper	--	--	--	1.2 J	--	1.5 J	--	4.5 J	
Lead	1.5	2	2.8	--	--	--	--	--	
Mercury	--	0.12	--	--	--	--	--	--	
Nickel	--	--	--	--	--	--	--	--	
Selenium	--	--	--	--	--	--	--	--	
Silver	--	--	--	0.54 J	--	--	--	0.56 J	
Tin	2.5 J	2.4 J	2.1 J	3.4 J	3.8 J	2.3 J	2.4 J	2.8 J	
Vanadium	1.7 J	1.8 J	1.9 J	3.9 J	2 J	4.1 J	1.7 J	3.2 J	
Zinc	2.5 J	1.4 J	2.2 J	--	--	--	--	--	
Cyanide	--	--	--	--	--	--	--	--	

See notes at end of table.

**Table 7-5 (Continued)**  
**Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7684	M7684	M7684	M7684	M7684	M7684	M7684	M7684	M7684
Sample Matrix:	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Sample Location:	MPT-28-SS08	MPT-28-SS09	MPT-28-SS10	MPT-28-SS11	MPT-28-SS12	MPT-28-SS13	MPT-28-SS14	MPT-28-SS14	MPT-28-SS14
Sample Number:	28SS00801	28SS00901	28SS01001	28SS01101	28SS01201	28SS01301	28SS01401	28SS01401	28SS01401DUP
Sample Date:	10-AUG-94	05-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94
Sample Depth (ft bis):	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
<b>Inorganics (mg/kg)</b>									
Antimony	--	--	--	--	--	--	--	--	--
Arsenic	1.1 J	0.59 J	0.71 J	1.1 J	0.66 J	0.74 J	0.59 J	0.71 J	0.71 J
Barium	4.1 J	2.7 J	3.2 J	6.2 J	3.7 J	2.2 J	2.2 J	2.5 J	2.5 J
Beryllium	0.05 J	0.09 J	--	0.08 J	0.07 J	0.06 J	0.04 J	0.06 J	0.06 J
Chromium	1.4 J	1.9 J	1.2 J	2.3	2 J	1.6 J	1.6 J	1.2 J	1.2 J
Cobalt	--	0.73 J	--	--	--	--	--	--	--
Copper	--	1 J	--	0.99 J	--	1.3 J	--	--	--
Lead	1.3	0.45 J	--	--	--	2	--	--	--
Mercury	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--
Selenium	0.47 J	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--
Tin	--	3.7 J	--	3.2 J	2.2 J	--	3.6 J	2.3 J	2.3 J
Vanadium	1.5 J	1.6 J	1.1 J	2.3 J	1.7 J	1.3 J	0.97 J	0.88 J	0.88 J
Zinc	--	--	1.1 J	8.6	1.7 J	3.7 J	1.7 J	1.2 J	1.2 J
Cyanide	--	--	--	--	--	--	--	--	--

See notes at end of table.

**Table 7-5 (Continued)**  
**Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7684 Surface Soil MPT-28-SS15 28SS01501	M7684 Surface Soil MPT-28-SS16 28SS01601	M7684 Surface Soil MPT-28-SS17 28SS01701	M7684 Surface Soil MPT-28-SS18 28SS01801	M7684 Surface Soil MPT-28-SS19 28SS01901	M7684 Surface Soil MPT-28-SS20 28SS02001	M7675 Surface Soil MPT-28-SS21 28SS02101	M7675 Surface Soil MPT-28-SS21 28SS02101DU P
Sample Date:	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	05-AUG-94	05-AUG-94
Sample Depth (ft bls):	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft	0 to 1.0 ft
<b>Inorganics (mg/kg)</b>								
Antimony	--	--	.89 J	--	--	--	--	--
Arsenic	0.95 J	1.1 J	1.3 J	1.2 J	0.93 J	1.5 J	0.46 J	0.52 J
Barium	5.6 J	4.3 J	9.5 J	6 J	4.3 J	6.4 J	2.9 J	5.4 J
Beryllium	0.08 J	0.1 J	0.13 J	0.12 J	--	0.5 J	0.12 J	0.13 J
Chromium	2.1 J	2 J	2.6	2.4	1.3 J	2.3	2.6	2.7
Cobalt	--	--	--	--	--	--	0.67 J	--
Copper	--	1.3 J	1.2 J	--	1.5 J	--	--	--
Lead	2.6	--	--	--	2.1	--	3 J	1.2 J
Mercury	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	0.29 J	--	--	--
Silver	--	--	--	--	--	--	--	--
Tin	4.4 J	2.6 J	2.4 J	2.7 J	3.1 J	2.4 J	3.3 J	4.4 J
Vanadium	1.8 J	1.7 J	2.5 J	2.2 J	1.3 J	2.2 J	1.9 J	2.7 J
Zinc	3.9 J	2 J	2.3 J	2.2 J	2.9 J	1.8 J	--	--
Cyanide	--	--	0.05 J	--	--	--	--	--

See notes at end of table.

**Table 7-5 (Continued)**  
**Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675 Surface Soil MPT-28-SS22	M7675 Surface Soil MPT-28-SS23	M7675 Surface Soil MPT-28-SS24	M7675 Surface Soil MPT-28-SS25	M7675 Surface Soil MPT-28-SS26	M7675 Surface Soil MPT-28-SS27	M7675 Surface Soil MPT-28-SS28	M7675 Surface Soil MPT-28-SS29
Sample Matrix:	28SS02201	28SS02301	28SS02401	28SS02501	28SS02601	28SS02701	28SS02801	28SS02901
Sample Location:	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94
Sample Number:	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
Sample Date:	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
Sample Depth (ft bls)	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
<b>Inorganics (mg/kg)</b>								
Antimony	--	--	--	--	--	--	--	--
Arsenic	0.58 J	0.82 J	1.1 J	0.53 J	0.49 J	0.56 J	0.67 J	0.75 J
Barium	4 J	4.6 J	7.1 J	6.5 J	3.5 J	4.8 J	5.8 J	4.2 J
Beryllium	0.1 J	0.13 J	0.13 J	0.16 J	0.1 J	0.11 J	0.1 J	0.12 J
Chromium	3.1	1.9 J	3.9	2.1 J	2.4	2.6	3.1	2 J
Cobalt	--	--	0.95 J	0.59 J	--	0.58 J	0.61 J	--
Copper	--	1.2 J	2.2 J	0.87 J	--	1 J	4.1 J	--
Lead	0.87 J	--	0.83 J	0.51 J	0.92 J	1.5 J	0.9 J	1 J
Mercury	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--
Silver	--	--	--	0.48 J	--	--	0.61 J	--
Tin	2.3 J	3.3 J	3.5 J	2.7 J	3.8 J	4.5 J	3.3 J	3 J
Vanadium	2.2 J	1.9 J	3.8 J	1.5 J	1.6 J	2.1 J	2.1 J	1.5 J
Zinc	--	--	--	--	--	--	3.4 J	--
Cyanide	--	--	--	--	--	--	--	--

See notes at end of table.

**Table 7-5 (Continued)**  
**Inorganic Analytes Detected in Surface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7675	M7675	M7683	M7683	M7683	M7683	M7698	M7698
Sample Matrix:	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil	Surface Soil
Sample Location:	MPT-28-SS30	MPT-28-SS30	MPT-28-SS31	MPT-28-SS32	MPT-28-SS33	MPT-28-SS34	MPT-28-SS35	
Sample Number:	28SS03001	28SS03001DUP	28SS03101	28SS03201	28SS03301	28SS03401	28SS03501	
Sample Date:	05-AUG-94	05-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	10-AUG-94	10-AUG-94	
Sample Depth (ft bls)	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
<b>Inorganics (mg/kg)</b>								
Antimony	--	--	--	--	--	--	--	--
Arsenic	0.77 J	0.6 J	0.55 J	3.2 J	0.9 J	1.2 J	1.2 J	
Barium	5.4 J	6.2 J	7.9 J	5.3 J	8.9 J	6.6 J	7.5 J	
Beryllium	0.1 J	0.15 J	--	--	--	0.8 J	0.2 J	
Chromium	2.4	3 J	2.7	2.2	2.5	3.5	5	
Cobalt	--	--	--	--	--	--	1 J	
Copper	1.8 J	2.6 J	--	--	--	6.8	--	
Lead	--	--	1.7 J	2.4 J	5.6 J	6.1	3.2	
Mercury	--	1 J	--	--	--	--	--	
Nickel	--	--	--	--	--	--	1.6 J	
Selenium	--	--	--	--	--	--	--	
Silver	--	--	0.48 J	--	0.78	--	--	
Tin	3.5 J	3.2 J	27.5 J	4.3 J	3 J	--	--	
Vanadium	1.8 J	1.8 J	2.1 J	1.6 J	2.2 J	6 J	5 J	
Zinc	--	--	17.2	--	--	16.7	15	
Cyanide	--	--	--	--	--	--	--	

Notes: SWMU = solid waste management unit.  
ft bls = feet below land surface.  
mg/kg = milligrams per kilogram.  
-- = analyte not detected.  
"J" = estimated value.

**Table 7-6**  
**Organic Analytes Detected in Subsurface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Laboratory Batch No.:	M7684	M7684	M7684	M7684	M7684	M7684	M7683	M7683
Sample Location:	MPT-28-BS01	MPT-28-BS05	MPT-28-BS10	MPT-28-BS17	MPT-28-BS22	MPT-28-BS031	MPT-28-BS031	MPT-28-BS031
Sample No.:	28BS00106	28BS00504	28BS01004	28BS01704	28BS02204	28BS03104D	28BS03104D	28BS03104D
Sample Date:	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94
Sample Depth (ft bis)	5 - 6	4 - 5	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4
<b>VOCs (8240) (µg/kg)</b>								
Acetone	--	200 J	88 J	59 J	--	--	--	--
Carbon disulfide	--	24	2 J	--	3 J	--	--	--
2-Butanone	--	21 J	--	--	--	--	--	--
Xylenes (total)	--	--	1 J	2 J	--	--	--	--
<b>SVOCs (8270) (µg/kg)</b>								
Di-n-Butylphthalate	--	--	--	50 J	--	--	--	--
Fluoranthene	--	--	--	--	280 J	--	--	--
Pyrene	--	--	--	--	280 J	--	--	--
Butylbenzylphthalate	--	--	--	--	230 J	--	--	--
Benzo(a)anthracene	--	--	--	--	210 J	--	--	--
Chrysene	--	--	--	--	270 J	--	--	--
Benzo(b)fluoranthene	--	--	--	--	310 J	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	290 J	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	180 J	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	200 J	--	--	--
Notes: SWMU = solid waste management unit. ft bis = feet below land surface. VOCs = volatile organic compounds. µg/kg = micrograms per kilogram. -- = analyte not detected. SVOCs = semivolatile organic compounds. "J" = estimated value.								

**Table 7-7**  
**Inorganic Analytes Detected in Subsurface Soil Samples Collected at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Laboratory Batch No.:	M7684	M7684	M7684	M7684	M7684	M7683	M7683
Sample Location:	MPT-28-BS01	MPT-28-BS05	MPT-28-BS10	MPT-28-BS17	MPT-28-BS22	MPT-28-BS31	MPT-28-BS031
Sample No.:	28BS00106	28BS00504	28BS01004	28BS01704	28BS02204	28BS03104	28BS03104D
Sample Date:	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94	06-AUG-94
Sample Depth (ft bls)	5 - 6	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4
<b>Inorganics (mg/kg)</b>							
Antimony	--	--	--	.67 J	--	--	--
Arsenic	.56 J	8.3 J	1.6 J	.83 J	4 J	.34 J	.43 J
Barium	2.1 J	26.9 J	3.9 J	5.9 J	8.4 J	8.9 J	5.2 J
Beryllium	--	1.3 J	.15 J	.11 J	.28 J	--	--
Cadmium	--	--	--	--	--	--	1.1
Chromium	1 J	38.7	4	2.3 J	8.1	1.8 J	1.7 J
Cobalt	--	7.4 J	.87 J	--	1.3 J	--	--
Copper	--	7.1 J	1.3 J	--	2 J	--	--
Lead	--	11.3	1.7	--	6.4	2 J	1.3 J
Mercury	--	1	--	--	.32	--	--
Nickel	--	10.6 J	--	--	2.2 J	--	--
Selenium	--	--	.36 J	.39 J	--	--	--
Tin	3.8 J	4.3 J	3.7 J	2.9 J	3.8 J	4.4 J	4.6 J
Vanadium	.85 J	38	3.3 J	2 J	8.5 J	1.5 J	1.4 J
Zinc	1.7 J	46	3.6 J	2 J	21.4	--	--
Cyanide	--	--	--	--	--	--	.06 J

Notes: SWMU = solid waste management unit.  
ft bls = feet below land surface.  
VOCs = volatile organic compounds.  
mg/kg = milligrams per kilogram.

-- = analyte not detected.  
SVOCs = semivolatile organic compounds.  
"J" = estimated value.

1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure. The concentrations listed for the USEPA Region III RBCs correspond to an HI of 0.1, whereas the USEPA Superfund SSL and the State of Florida cleanup goals are based on an HI of 1. The Federal NCP final rule (40 CFR, Part 300) states that for carcinogens a lifetime excess cancer risk within the range of  $10^{-4}$  (a chance of 1 in 10,000 for an adverse carcinogenic effect for a continuous lifetime exposure) to  $10^{-6}$  represents concentrations that are considered by USEPA to be protective of human health.

Surface Soils. Target analytes detected in surface soil samples collected in Section 1 of SWMU 28 consisted of 2 VOCs (acetone and xylenes), 3 SVOCs (diethylphthalate, di-n-butylphthalate, and pyrene) and 13 inorganics (arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, selenium, silver, tin, vanadium, and zinc).

Target analytes detected in surface soil samples collected in Section 2 of SWMU 28 consisted of 1 VOC (xylenes), 14 SVOCs (fluoranthene, pyrene, butylbenzylphthalate, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, di-n-butylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene) and 13 inorganics (antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, selenium, tin, vanadium, zinc, and cyanide).

Target analytes detected in surface soil samples collected in Section 3 of SWMU 28 consisted of 1 VOC (acetone), 5 SVOCs (di-n-butylphthalate, bis(2-ethylhexyl)phthalate, 4-chloro-3-methylphenol, pyrene, and 2-chlorophenol) and 14 inorganics (arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, selenium, silver, tin, vanadium, zinc, and cyanide).

Target analytes detected in surface soil samples collected at the storage area behind the recycling center consisted of 1 VOC (methylene chloride) and 10 inorganics (arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc).

Pesticides and PCBS were not detected in any of the surface soil samples from Sections 1, 2, or 3 of SWMU 28.

Subsurface Soil. Target analytes detected in the subsurface soil samples collected at Section 1 of SWMU 28 consisted of 3 VOCs (acetone, carbon disulfide, and 2-butanone) and 12 inorganics (arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, nickel, tin, vanadium, and zinc). SVOCs, pesticides and PCBs were not detected in subsurface soil samples collected at Section 1.

Target analytes detected in subsurface soil samples collected at Section 2 of SWMU 28 consisted of 3 VOCs (acetone, carbon disulfide, and xylenes), 1 SVOC (di-n-butylphthalate), and 12 inorganics (antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, selenium, tin, vanadium, and zinc). Pesticides and PCBs were not detected in subsurface soil samples collected at Section 2.

Target analytes detected in subsurface soil samples collected in Section 3 of SWMU 28 consisted of 1 VOC (carbon disulfide), 9 SVOCs (fluoranthene, pyrene, butylbenzylphthalate, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene), and 14 inorganics (arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, tin, vanadium, zinc, and cyanide). Pesticides and PCBs were not detected in the soil samples collected at Section 3.



**Table 7-8**  
**Chemicals of Potential Concern in Surface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Acetone	2/35	10 to 12	97 to 110	104	ND	780,000	7,800,000	130,000	No	S, P, G
Methylene chloride	1/35	5 to 6	4	4	ND	85,000	85,000	9,300	No	S, P, G
Xylenes (total)	5/35	5 to 6	1 to 6	2.4	ND	16,000,000	160,000,000	6,400,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
2-Chlorophenol	1/35	340 to 3,600	89	89	ND	39,000	NA	220	No	S, G
4-Chloro-3-methylphenol	1/35	340 to 3,600	55	55	ND	NA	NA	NA	Yes	
Benzo(a)anthracene	1/35	340 to 3,600	46	46	ND	880	900	1,400	No	S, P, G
Benzo(a)pyrene	1/35	340 to 3,600	50	50	ND	88	90	140	No	S, P, G
Benzo(b)fluoranthene	1/35	340 to 3,600	50	50	ND	880	900	1,400	No	S, P, G
Benzo(g,h,i)perylene	1/35	340 to 3,600	50	50	ND	NA	NA	14,000	No	G
Benzo(k)fluoranthene	1/35	340 to 3,600	48	48	ND	8,800	9,000	14,000	No	S, P, G
Butylbenzylphthalate	3/35	340 to 3,600	83 to 100	89.7	ND	1,600,000	16,000,000	15,000,000	No	S, P, G
Chrysene	1/35	340 to 3,600	42	42	ND	88,000	88,000	140,000	No	S, P, G
Di-n-butylphthalate	5/35	340 to 3,600	75 to 203.5*	128	ND	780,000	7,800,000	7,500,000	No	S, P, G
Di-n-octylphthalate	1/35	340 to 3,600	40	40	ND	160,000	1,600,000	1,500,000	No	S, P, G
Dibenz(a,h)anthracene	1/35	340 to 3,600	52	52	ND	88	90	140	No	S, P, G
Diethylphthalate	1/35	340 to 3,600	111.5*	112	ND	6,300,000	63,000,000	51,000,000	No	S, P, G
Fluoranthene	1/35	340 to 3,600	49	49	ND	310,000	3,100,000	2,800,000	No	S, P, G
Indeno(1,2,3-cd)pyrene	1/35	340 to 3,600	48	48	ND	880	900	1,400	No	S, P, G
Pyrene	3/35	340 to 3,600	39 to 108.5*	69.8	ND	230,000	2,300,000	2,200,000	No	S, P, G
bis(2-Ethylhexyl)phthalate	4/35	340 to 3,600	37 to 199.5*	93.1	ND	46,000	46,000	45,000	No	S, P, G

See notes at end of table.

**Table 7-8 (Continued)**  
**Chemicals of Potential Concern in Surface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Pesticides/PCBs (µg/kg)</b>										
No analytes detected										
<b>Inorganics (mg/kg)</b>										
Antimony	1/35	1.04 to 1.12	0.89	0.89	ND	3.1	31	26	No	S, P, G
Arsenic	35/35	2.075 to 2.25	0.49* to 3.2	0.97	ND	<sup>9</sup> 0.37	0.4	0.7	Yes	
Barium	35/35	41.515 to 44.99	2.2 to 17.4	5.6	5.6	550	5,500	5,000	No	S, P, G
Beryllium	29/35	1.04 to 1.12	0.05 to 0.2	0.1	0.16	0.15	0.1	0.1	Yes	
Chromium	35/35	2.075 to 2.25	1.2 to 5	2.4	2.6	<sup>10</sup> 39	390	<sup>10</sup> 150	No	S, P, G
Cobalt	8/35	10.375 to 11.25	0.58 to 3.0125*	1	ND	470	NA	4,700	No	S, G
Copper	16/35	5.19 to 5.62	0.87 to 6.8	2.1	2.2	290	NA	2,900	No	S, G
Lead	21/35	0.62 to 0.67	0.45 to 6.1	1.9	ND	<sup>11</sup> 400	<sup>11</sup> 400	500	No	S, P, G
Mercury	1/35	0.04 to 0.04	0.07*	0.07	ND	2.3	23	23	No	S, P, G
Nickel	1/35	8.305 to 9	1.6	1.6	ND	160	1,600	1,500	No	S, P, G
Selenium	2/35	1.04 to 1.12	0.29 to 0.47	0.38	ND	39	390	390	No	S, P, G
Silver	6/35	2.075 to 2.25	0.48 to 0.78	0.58	ND	39	390	380	No	S, P, G
Tin	30/35	10.375 to 11.25	2.2 to 27.5	3.9	5.4	4,700	NA	44,000	No	S, G
Vanadium	35/35	10.375 to 11.25	0.925* to 6	2.2	4	55	550	480	No	S, P, G
Zinc	17/35	4.15 to 4.5	1.1 to 17.2	5.2	2.6	2,300	23,000	23,000	No	S, P, G
Cyanide	1/35	2.075 to 2.25	0.05	0.05	ND	160	1,600	1,600	No	S, P, G

See notes on next page.

**Table 7-8 (Continued)**  
**Chemicals of Potential Concern in Surface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>(*)2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
---------	-------------------------------------	---------------------------	--	--	---	---	---	--	-----------------------	---------------------

<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).

<sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.

<sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).

<sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentrations. Organic values are included for comparison purposes only.

<sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of 10<sup>-6</sup> and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).

<sup>6</sup> Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.

<sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the aggregate resident based on a cancer risk of 10<sup>-6</sup> and the child resident based on a hazard quotient of 1.

<sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:

S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.

G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.

B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.

F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.

C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).

M = the analyte was detected at less than 5 percent and is a CPC in more than one media.

P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.

<sup>9</sup> The value is based on arsenic as a carcinogen.

<sup>10</sup> The value is based on chromium hexavalent form.

<sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include:

Background sample locations include: MPT-B-SS01; MPT-B-SS02; MPT-B-SS03; MPT-B-SS04; MPT-B-SS05; MPT-B-SS06

Duplicate background sample locations include: MPT-B-SS01Dup

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

µg/kg = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

mg/kg = milligrams per kilograms.

**Table 7-9**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
2-Butanone	1/6	11 to 21	21	21	ND	4,700,000	NA	17,000,000	No	S, G
Acetone	3/6	11 to 21	59 to 200	116	ND	780,000	7,800,000	890,000	No	S, P, G
Carbon disulfide	3/6	5 to 11	2 to 24	9.7	ND	780,000	7,800,000	18,000	No	S, P, G
Xylenes (total)	2/6	5 to 11	1 to 2	1.5	ND	16,000,000	160,000,000	44,000,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Benzo(a)anthracene	1/6	350 to 1,700	210	210	ND	880	900	4,900	Yes	C
Benzo(b)fluoranthene	1/6	350 to 1,700	310	310	ND	880	900	4,900	Yes	C
Benzo(g,h,i)perylene	1/6	350 to 1,700	200	200	ND	NA	NA	50,000	No	G
Butylbenzylphthalate	1/6	350 to 1,700	230	230	ND	1,600,000	16,000,000	300,000,000	No	S, P, G
Chrysene	1/6	350 to 1,700	270	270	ND	88,000	88,000	490,000	Yes	C
Di-n-butylphthalate	1/6	350 to 1,700	50	50	ND	780,000	7,800,000	150,000,000	No	S, P, G
Dibenz(a,h)anthracene	1/6	350 to 1,700	180	180	ND	88	90	500	Yes	C
Fluoranthene	1/6	350 to 1,700	280	280	ND	310,000	3,100,000	44,000,000	No	S, P, G
Indeno(1,2,3-cd)pyrene	1/6	350 to 1,700	290	290	ND	880	900	5,000	Yes	C
Pyrene	1/6	350 to 1,700	280	280	ND	230,000	2,300,000	37,000,000	No	S, P, G
<b>Pesticides/PCBs (µg/kg)</b>										
No Analytes detected										

See notes at end of table.

**Table 7-9 (Continued)**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Inorganics (mg/kg)</b>										
Antimony	1/6	1.06 to 1.89	0.67	0.67	ND	3.1	31	210	No	S, P, G
Arsenic	6/6	2.12 to 3.78	0.385* to 8.3	2.6	0.9	90.37	0.4	3	Yes	
Barium	6/6	42.42 to 75.61	2.1 to 26.9	9	7.2	550	5,500	74,000	No	S, P, G
Beryllium	4/6	1.06 to 1.89	0.11 to 1.3	0.46	0.14	0.15	0.1	0.2	Yes	
Cadmium	1/6	1.06 to 1.89	0.82*	0.82	ND	3.9	39	600	No	S, P, G
Chromium	6/6	2.12 to 3.78	1 to 38.7	9.3	3.4	1039	390	10220	No	S, P, G
Cobalt	3/6	10.6 to 18.9	0.87 to 7.4	3.2	1.04	470	NA	110,000	No	S, G
Copper	3/6	5.3 to 9.45	1.3 to 7.1	3.5	3.6	290	NA	72,000	No	S, G
Lead	4/6	0.64 to 1.13	1.65* to 11.3	5.3	2.8	11400	400	1,000	No	S, P, G
Mercury	2/6	0.04 to 0.08	0.32 to 1	0.66	0.06	2.3	23	480	No	S, P, G
Nickel	2/6	8.48 to 15.12	2.2 to 10.6	6.4	ND	160	1,600	11,000	No	S, P, G
Selenium	2/6	1.06 to 1.89	0.36 to 0.39	0.38	ND	39	390	9,900	No	S, P, G
Tin	6/6	10.6 to 18.9	2.9 to 4.5*	3.8	5.4	4,700	NA	660,000	No	B
Vanadium	6/6	10.6 to 18.9	0.85 to 38	9	3.2	55	550	4,800	No	S, P, G
Zinc	5/6	4.24 to 7.56	1.7 to 46	14.9	4.8	2,300	23,000	550,000	No	S, P, G
Cyanide	1/6	2.12 to 3.78	0.57*	0.57	0.66	160	1600	40,000	No	B

See notes on next page.

**Table 7-9 (Continued)**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values). <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate. <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier). <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only. <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of 10 <sup>-6</sup> and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs). <sup>6</sup> Source: USEPA, December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101. <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the Industrial Worker based on a cancer risk of 10 <sup>-6</sup> and the general worker based on a hazard quotient of 1. <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons: S = the maximum detected concentration did not exceed the screening concentration and will not be considered further. G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further. B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations. F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study. C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons [PAHs]). M = the analyte was detected at less than 5 percent and is a CPC in more than one media. P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994. <sup>9</sup> The value is based on arsenic as a carcinogen. <sup>10</sup> The value is based on chromium hexavalent form. <sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised Interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.										

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 28BS00106, 28BS00504, 28BS01004, 28BS01704, 28BS002204, 28BS03104,

Duplicate sample locations include: 28BS03104D

Background sample locations include: MPT-B-BS01; MPT-B-BS04; MPT-B-BS05; MPT-B-BS06

Duplicate background sample locations include: MPT-B-BS1Dup

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

µg/kg = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

mg/kg = milligrams per kilograms.

Groundwater Analytical Results. A summary of groundwater quality parameters is provided in Table 7-10 and Table 7-11 summarizes the validated analytical results for organic and inorganic analytes detected in groundwater samples collected at SWMU 28. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 7-12. Bench mark comparison values consist of background screening values computed from station wide background groundwater samples (ABB-ES, 1995b), USEPA Region III RBCs (USEPA, 1995), and Florida groundwater guidance values (FDEP, 1994).

Each of the bench mark criteria provided in Table 7-12 are human health based and represent the lower of either a noncarcinogenic HI of 1 or a lifetime excess cancer risk of  $10^{-6}$ . Bench mark values for a noncarcinogenic HI of 1 or less represent a concentration where noncarcinogenic effects are not likely. A bench mark value for a lifetime excess cancer risk of  $10^{-6}$  represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure.

The water quality parameters for the SWMU 28 groundwater monitoring wells were compared to the State of Florida secondary water quality criteria (Table 7-10). Values determined for color met or exceeded the State of Florida secondary water quality criteria for six of the groundwater samples. Values determined for Hardness as  $\text{CaCO}_3$  suggest that the groundwater would be considered very hard (greater than 180 mg/l for the groundwater sample collected from the monitoring wells [Durfor and Becker, 1964]). The values determined for total dissolved solids suggest that the groundwater would be considered fresh. The range for classifying water as fresh is 0 to 1,000 mg/l (Freeze and Cherry, 1979).

Target analytes detected in monitoring well MPT-8-MW05S, which is hydraulically upgradient from SWMU 28, consist of one SVOC 3- and 4-methylphenol (2) and nine inorganics (arsenic, barium, calcium, chromium, iron, magnesium, manganese, vanadium, and zinc). VOCs, pesticides, and PCBs were not detected in the groundwater samples collected from monitoring well MPT-8-MW05S.

Target analytes detected in the monitoring wells and piezometers hydraulically downgradient from SWMU 28 consisted of 1 VOC (methylene chloride), 1 SVOC (bis(2-ethylhexyl)phthalate), and 15 inorganics (arsenic, barium, calcium, cadmium, chromium, iron, magnesium, manganese, nickel, sodium, tin, thallium, vanadium, zinc, and cyanide).

Groundwater samples collected for inorganic analysis from MPT-8f-MW01S on July 11, 1994, consisted of an unfiltered (08MW001S) and filtered (45 micron) sample (08MW001SF). The filtered sample contained lower concentrations of arsenic, calcium, iron, magnesium, manganese, and magnesium, and similar concentrations for sodium and thallium. The filtered sample did not contain barium. The difference in the two samples may be due to the removal of colloidal size material in the filtered sample. The filtered sample is a reference sample to assess the low flow sampling methodology, which appears to effectively obtain a groundwater sample that is representative of the aquifer.

7.4 PRELIMINARY RISK EVALUATION. The following presents a preliminary risk evaluation of the target analytes detected in surface and subsurface soil samples. The preliminary risk evaluation assesses the detected concentrations in the environmental samples against background screening and bench mark values. The evaluation includes surface soil samples collected at Sections 1, 2, and 3 and the

**Table 7-10**  
**Water Quality Parameters for SWMU 28 Groundwater Samples**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	23921	M7505	23887	M7505	R8405	Groundwater Secondary <sup>1</sup> Water Quality Criteria
Sample Matrix:	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	
Sample Location:	MPT-8-MW01S	MPT-8-MW01S	MPT-8-MW05S	MPT-8-MW05S	MPT-28-MW01S	
Sample No.:	8MW1	08MW001S	8MW5S	08MW005S	28MW001S	
Date Sampled:	01-FEB-94	11-JUL-94	1-27-93	26-JUL-94	11-JULY-94	
Common Name	Units	Conc.	Conc.	Conc.	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	163	150	250	242	332
Ammonia-N	mg/l	0.2	0.7	--	1.3	--
Chloride	mg/l	14.9	5.6	8.5	31.7	17.1
Color	APHA	15	70	15	30	50
Hardness as CaCO <sub>3</sub>	mg/l	220	180	288	262	251
Nitrate/Nitrite-N	mg/l	NA	NA	NA	NA	0.26
Oil and Grease	mg/l	324	0.1	1.5	NA	--
Phosphorous-P, Total	mg/l	0.75	1.0	0.24	0.81	1.6
Sulfate	mg/l	25.5	33.2	45.2	36.4	71.4
Sulfide	mg/l	0.5	--	--	6.0	--
Total Dissolved Solids	mg/l	324	422	388	417	442
Total Kjeldahl Nitrogen	mg/l	0.8	1.3	0.6	3.4	8.3
Total Organic Carbon	mg/l	4.1	4.6	4.7	5.2	5.3
pH	SU	7.6	7.6	7.5	7.4	7.3

See notes at end of table.



**Table 7-10 Continued)**  
**Water Quality Parameters for SWMU 28 Groundwater Samples**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch:	R8609	R8609	Groundwater	Groundwater	Groundwater
Sample Matrix:			MPT-10-P01	MPT-15-P01	Secondary <sup>1</sup>
Sample Location:			100P001	150P001	Water Quality
Sample No.:			24-AUG-94	24-AUG-94	Criteria
Date Sampled:					
Common Name	Units	Conc.	Conc.	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	207	291	--	--
Ammonia nitrogen	mg/l	--	0.8	--	--
Chloride	mg/l	9.1	43.7	250,000	250,000
Color	APHA	20	5.0	15	15
Hardness as CaCO <sub>3</sub>	mg/l	252	326	--	--
Nitrate = nitrite nitrogen	mg/l	0.26	--	10,000	10,000
Oil and grease	mg/l	NA	NA	--	--
Phosphorous P, total	mg/l	0.63	0.4	--	--
			5		
Sulfate	mg/l	48	62.9	250,000	250,000
Sulfide	mg/l	1.4	--	--	--
Total dissolved solids	mg/l	349	503	500	500
Total Kjeldahl nitrogen	mg/l	1.7	1.2	--	--
Total organic carbon	mg/l	36.1	8.2	--	--
pH	SU	7.4	7.1	6.5 to 8.5	6.5 to 8.5

<sup>1</sup> Secondary Water Quality Criteria Chapter 17-550.320, Florida Administrative Code (FAC).

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
SWMU = solid waste management unit.  
Conc. = concentration.  
CaCO<sub>3</sub> = calcium carbonate.  
mg/l = milligrams per liter.  
-- = analyte not detected.  
APHA = American Public Health Association.  
NA = not analyzed.  
SU = standard units.

**Table 7-11**  
**Organic and Inorganic Analytes Detected in Groundwater Samples At SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Laboratory Batch No.:	23918	M7504	M7504	23886	P8403
Matrix	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:	MPT-8-MW01S	MPT-8-MW01S	MPT-8-MW01S	MPT-8-MW05	MPT-8-MW05
Sample No.:	8MW1	08MW001S	08MW001SF	MPT8MW5S	08MW005S
Sample Date	2-FEB-93	11-JUL-94	11-JUL-94	27-JAN-93	26-JUL-94
<b>VOCs (8240) (µg/l)</b>					
Methylene chloride	5 J	--	--	--	--
<b>SVOCs (8270) (µg/l)</b>					
bis(2-Ethylhexyl)phthalate	5 J	--	--	--	29
3- & 4-Methylphenol (2)	--	--	--	--	--
<b>Inorganics (µg/l)</b>					
Arsenic	3.2 J	1.1 J	.95 J	2.9 J	--
Barium	9.7 J	3.9 J	--	6.5 J	--
Calcium	--	57,900	58,800	89,500	84,500 J
Cadmium	3.0 J	--	--	--	--
Chromium	4.5 J	--	--	6.6 J	--
Iron	--	710 J	450	2,760 J	--
Magnesium	--	6,180	5,730	15,400	--
Manganese	--	43.6 J	39.3 J	39.9	--
Nickel	--	--	--	--	--
Sodium	--	4,980 J	4,940 J	--	--
Tin	13.2 J	--	--	--	--
Thallium	--	1.5 J	1.5 J	--	--
Vanadium	6.3 J	--	--	7.2 J	--
Zinc	31	--	--	23.9 J	--
Cyanide	--	--	--	--	--

See notes at end of table.

**Table 7-11 (Continued)**  
**Organic and Inorganic Analytes Detected in Groundwater Samples At SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Laboratory Batch No.:	M7505	R8609	R8607
Matrix	Groundwater	Groundwater	Groundwater
Sample Location:	MPT-28-MW01S	MPT-10-PO1	MPT-15-PO1
Sample No.:	28MW001S	10OP001	15OP001
Sample Date	11-JUL-94	24-AUG-94	24-AUG-94
<b>VOCs (8240) (<math>\mu\text{g}/\text{l}</math>)</b>			
Methylene chloride	--	--	--
<b>SVOCs (8270) (<math>\mu\text{g}/\text{l}</math>)</b>			
bis(2-Ethylhexyl)phthalate	--	--	--
3- & 4-Methylphenol (2)	--	--	--
<b>Inorganics (<math>\mu\text{g}/\text{l}</math>)</b>			
Arsenic	4.3 J	1.4 J	1.0 J
Barium	7.0 J	4.7 J	3.1 J
Calcium	97,700	77,900	129,000
Cadmium	--	--	--
Chromium	--	--	--
Iron	173 J	46.7 J	130
Magnesium	10,800	11,400	4,800 J
Manganese	42.9 J	4.5 J	33.4
Nickel	7.6 J	--	--
Sodium	12,400	8,190	30,800
Tin	--	--	--
Thallium	--	--	--
Vanadium	4.8	4.4 J	1.9 J
Zinc	--	3.6 J	5.4 J
Cyanide	--	3.6 J	3.0 J

Notes: SWMU = solid waste management unit.  
VOCs = volatile organic compounds.  
 $\mu\text{g}/\text{l}$  = micrograms per liter.  
"J" = estimated value.  
-- = analyte not detected.  
SVOCs = semivolatile organic compounds.

**Table 7-12**  
**Chemicals of Potential Concern in Groundwater at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentration <sup>3</sup>	Background Screening Concentration	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
<b><u>Volatiles (µg/l)</u></b>									
No Analytes Detected									
<b><u>Semivolatiles (µg/l)</u></b>									
No Analytes Detected									
<b><u>Pesticides/PCBs (µg/l)</u></b>									
No Analytes Detected									
<b><u>Inorganics (µg/l)</u></b>									
Arsenic	4/4	0.6 to 10	1 to 4.3	2	11.4	<sup>5</sup> 0.038	50	No	B
Barium	4/4	0.4 to 200	3.1 to 7	4.7	10.2	260	2,000	No	B
Calcium	4/4	41.7 to 5,000	57,900 to 129,000	90,625	170,450	1,055,398	NA	No	B
Iron	4/4	9.1 to 100	46.7 to 710	265	2,076	13,267	300	No	B
Magnesium	4/4	31.4 to 5,000	4,800 to 11,400	8,295	21,234	118,807	NA	No	B
Manganese	4/4	0.6 to 15	4.5 to 43.6	31.1	185.8	18	50	No	B
Nickel	1/4	5.9 to 40	7.6	7.6	ND	73	100	No	S, G
Sodium	4/4	14.4 to 5,000	4,980 to 30,800	14,237	18,624	396,022	160,000	No	S, G
Thallium	1/4	0.6 to 10	1.5	1.5	ND	<sup>5</sup> 0.29	2	Yes	
Vanadium	3/4	1.5 to 50	1.9 to 4.8	3.7	10.6	26	49	No	B
Zinc	2/4	1 to 20	3.6 to 5.4	4.5	50	1,100	5000	No	B
Cyanide	2/4	2.7 to 10	3 to 3.6	3.3	1.9	73	200	No	S, G

See notes on next page.

**Table 7-12 (Continued)**  
**Chemicals of Potential Concern in Groundwater at SWMU 28**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations	Mean of Detected Concentrations <sup>3</sup>	Background Screening Concentration <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
---------	-------------------------------------	---------------------------	----------------------------------	--	---	---	---	-----------------------	---------------------

<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).

<sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For nondetected values, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.

<sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "JJ" qualifier) and rejected ("R" qualifier).

<sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples.

<sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for tap water per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from RBC Table dated February 1995, and are based on a cancer risk of 10<sup>-6</sup> or an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).

<sup>6</sup> Florida Department of Environmental Protection Groundwater Guidance Concentrations (June 1994).

<sup>7</sup> Analytes were included or excluded from the risk assessment for the following reasons:

S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.

G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.

B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.

F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.

C = the analyte is a member of a chemical class that contains other human health chemicals of potential concern (HHCPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).

M = the analyte was detected at less than 5 percent and is a HHCP in more than one media.

P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.

<sup>8</sup> The value is based on arsenic as a carcinogen.

<sup>9</sup> The values is based on thallium as thallium sulfate.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include: 08MW001S, 100P001, and 150P001.

Background sample locations include: 01MW001, 08MW005S, 08MW001S, 08MW001R, 8MW5S, MPT-1-MW1-1, MPT-S-1-1, and S1.

CPCs = chemicals of potential concern.

µg/l = micrograms per liter.

PCBs = polychlorinated biphenyls.

NA = not available.

ND = not detected in any background samples.

recycling center at SWMU 28; subsurface soil collected at Sections 1, 2, and 3; and groundwater samples collected from monitoring wells and piezometers located hydraulically downgradient from SWMU 28.

Surface Soil. Chemicals of potential concern consist of one SVOC (4-chloro-3-methylphenol and two inorganics (arsenic and beryllium). VOCs were not determined to be chemicals of potential concern, and pesticides and PCBs were not detected in the surface soil samples collected at SWMU 28.

Section 1 surface soil samples did not contain detectable concentrations of the SVOCs 4-chloro-3-methylphenol and benzo(g,h,i)perylene. Arsenic was detected in nine samples and a duplicate and beryllium was detected in eight surface soil samples and a duplicate at Section 1.

Arsenic was not detected in background surface soil samples. The concentrations of arsenic detected in the Section 1 surface soil samples exceeded the USEPA Region III RBC (0.37 mg/kg), the proposed Superfund SSL (0.4 mg/kg), and the FDEP cleanup goal (0.7 mg/kg).

The concentrations of beryllium detected in the Section 1 surface soil samples exceeded the background screening value (0.16 mg/kg) in one sample. The USEPA Region III RBC (0.15 mg/kg) was exceeded in one sample and the proposed Superfund SSL and Florida cleanup goal of 0.1 mg/kg was exceeded in three samples.

Section 2 surface soil samples did not contain detectable concentrations of the SVOC 4-chloro-3-methylphenol. Arsenic was detected in nine samples and a duplicate and beryllium was detected in eight surface soil samples and a duplicate at Section 2.

The concentrations of arsenic detected in the Section 2 surface soil samples exceeded the USEPA Region III RBC, the proposed Superfund SSL, and the FDEP cleanup goal. The concentrations of beryllium detected in the Section 2 surface soil samples did not exceed the background screening value. The USEPA Region III RBC was not exceeded and the proposed superfund SSL and Florida cleanup goal was exceeded in three samples.

Section 3 surface soil samples contained 4-chloro-3-methylphenol in 1 of 15 samples at a concentration of 55 mg/kg. Arsenic was detected in 15 samples and 2 duplicates and beryllium was detected in 11 surface soil samples and 2 duplicate surface soil samples.

4-Chloro-3-methylphenol was determined to be a chemical of potential concern because there are no bench mark values to assess this organic compound.

The concentrations of arsenic detected in the Section 3 surface soil samples exceeded the USEPA Region III RBC, the proposed Superfund SSL and Florida cleanup goal. The FDEP cleanup goal was exceeded in eight surface soil samples.

The concentrations of beryllium detected in the Section 3 surface soil samples exceeded the background screening value in three surface soil samples. The USEPA Region III RBC was exceeded in 3 surface soil samples and the proposed superfund SSL and Florida cleanup goal was exceeded in 13 samples.

Surface soil samples collected at the recycling center part of SWMU 28 did not contain detectable concentrations of the SVOC 4-chloro-3-methylphenol. Arsenic and beryllium were detected in both of the surface soil samples collected at this location. The concentrations of arsenic exceeded the USEPA Region III RBC, the proposed Superfund SSL, and the FDEP cleanup goal. The concentrations of beryllium exceeded the background screening value, the USEPA Region III RBC, the proposed Superfund SSL and the Florida cleanup goal.

Subsurface Soil. The subsurface soil samples did not contain VOCs at concentrations that exceeded bench mark values. Pesticides and PCBs were not detected in the subsurface soil samples. Organic target analytes that exceeded bench mark values were five SVOCs (benzo(a)anthracene, benzo(b)perylene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene). Inorganic target analytes that exceeded background screening values and bench mark values were arsenic and beryllium.

The subsurface soil samples collected in Section 1 of SWMU 28 did not contain detectable concentrations of the SVOCs. Arsenic was detected in both of the Section 1 subsurface soil samples and beryllium was detected in only one of the samples.

Only one of the samples contained arsenic at a concentration (8.3 mg/kg) that exceeded the background screening value (0.9 mg/kg). Both of the subsurface soil samples collected at Section 1 contained arsenic at concentrations that exceeded the USEPA Region III RBC (0.37 mg/kg) and the proposed Superfund SSL (0.37 mg/kg). One subsurface soil sample contained arsenic at a concentration that exceeded the FDEP cleanup goal (3 mg/kg) for an industrial worker.

The concentration of beryllium detected in the Section 1 subsurface soil sample (1.3 mg/kg) exceeded the background screening value (0.14 mg/kg), the USEPA Region III RBC (0.15 mg/kg), and the proposed Superfund SSL and the Florida cleanup goal 0.1 mg/kg.

The subsurface soil samples collected in Section 2 of SWMU 28 did not contain detectable concentrations of the SVOC. Arsenic and beryllium were detected in both of the Section 2 subsurface soil samples.

Arsenic was detected in one of the subsurface soil samples at a concentration (1.9 mg/kg) that exceeded the background screening value. Both of the section 2 subsurface soil samples contained arsenic at concentrations that exceeded the USEPA Region III RBC and the proposed Superfund SSL, but not the FDEP cleanup goal for an industrial worker.

Beryllium was detected in one of the subsurface soil samples at a concentration (1.9 mg/kg) that exceeded the background screening value. One of the samples contained beryllium at a concentration that equaled the USEPA Region III RBC and both of the section 2 subsurface samples contained beryllium at concentrations that exceeded the proposed Superfund SSL.

One of the subsurface soil samples from Section 3 contained the SVOC dibenz(a,h)anthracene at a concentration (180 µg/kg) that exceeded the USEPA Region III RBC (88 µg/kg) and the proposed Superfund SSL (90 µg/kg). Because PAH compounds like dibenz(a,h)anthracene may have additive adverse carcinogenic effects, the other PAH compounds (benzo(a)anthracene, benzo(b)perylene, chrysene,

and indeno(1,2,3-cd)pyrene) were also indicated to exceed the bench mark values. However, none of the PAH compounds were detected at concentrations that exceed the FDEP cleanup goals.

Arsenic was detected in one of the subsurface soil samples at a concentration (4 mg/kg) that exceeded the background screening value. One subsurface soil sample and the corresponding duplicate to the other subsurface soil sample contained arsenic at concentrations that exceeded the USEPA Region III RBC and the proposed Superfund SSL. One of the samples contained arsenic at concentrations that exceeded the FDEP cleanup goal for an industrial worker.

Beryllium was detected as a single occurrence in the Section 3 subsurface soil samples at a concentration (0.28 mg/kg) that exceeded the background screening value, the USEPA Region III RBC, and the proposed Superfund SSL and the Florida cleanup goal.

Groundwater. Four of the groundwater samples collected in 1994 from monitoring wells MPT-8-MW01S and MPT-28-MW01S, and piezometers MPT-10-P01 and MPT-15-P01 were used to assess CPCs for SWMU 28 groundwater samples. Monitoring well MPT-8-MW05S was excluded because it is hydraulically upgradient from SWMU 28. Data collected in 1992 from monitoring well MPT-8-MW01S was excluded because the sampling method produced a turbid sample that was not as representative of the groundwater produced from the well as data collected in 1994 using low flow sampling methodology. The difference between the samples is illustrated by the detection of different analytes, with the exceptions of arsenic and barium, in the samples from 1993 and 1994.

Only one target analyte, thallium, was determined to be a chemical of potential concern. Thallium was detected as a single occurrence in the groundwater sample from monitoring well MPT-8-MW01 at a concentration of 1.5  $\mu\text{g}/\text{l}$ . It should be noted that the filtered sample contained thallium at the same concentration. Thallium was not detected in the background groundwater samples. The concentration of thallium exceeded the USEPA Region III RBC (0.29  $\mu\text{g}/\text{l}$ ), but not the FDEP guidance concentration (2  $\mu\text{g}/\text{l}$ ). The FDEP guidance concentration is a promulgated standard.

## 7.5 CONCLUSIONS AND RECOMMENDATIONS.

### 7.5.1 Conclusions

Surface Soil Samples. None of the VOCs (acetone, methylene chloride, and xylenes) were detected in the surface soil samples collected at SWMU 28 at concentrations that exceeded the bench mark values. Pesticides and PCBs were not detected in the surface soil samples. One SVOC (4-chloro-3-methylphenol) and two inorganics (arsenic and beryllium) were determined to be chemicals of potential concern.

The SVOC 4-chloro-3-methylphenol was determined to be a chemical of potential concern because, currently, there is not a bench mark criteria for this compound.

The inorganic analytes, arsenic and beryllium, exceeded both background screening and bench mark values. Arsenic is considered to exceed background screening



values because it was not detected in surface soil background samples. Concentrations of arsenic exceeded the USEPA Region III RBC (0.37 mg/kg), the proposed Superfund SSL (0.4 mg/kg), and the FDEP cleanup goal (0.7).

Beryllium was detected at concentrations that exceeded the background screening value (0.16 mg/kg), the USEPA Region III RBC (0.15 mg/kg), and the proposed Superfund SSL and Florida cleanup goal of 0.1 mg/kg.

Arsenic and beryllium were detected in surface soil samples at concentrations that exceeded bench mark values, which are based on values for a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with concentrations of arsenic and beryllium that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR 300, 1990) (see Table C-1, Appendix C).

Subsurface Soil Samples. None of the VOCs (2-butanone, acetone, carbon disulfide, and xylenes) were detected in the subsurface soil samples collected at SWMU 28 at concentrations that exceeded the bench mark values. Pesticides and PCBs were not detected in the surface soil samples. Five SVOCs (benzo(a)anthracene, benzo(b)perylene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene) and two inorganics (arsenic and beryllium) were determined to be chemicals of potential concern.

One of the subsurface soil samples from Section 3 contained the SVOC dibenz(a,h)anthracene at a concentration (180  $\mu\text{g/kg}$ ) that exceeded the USEPA Region III RBC (88  $\mu\text{g/kg}$ ) and the proposed Superfund SSL (90  $\mu\text{g/kg}$ ). Because PAH compounds like dibenz(a,h)anthracene may have additive adverse carcinogenic effects, the other PAH compounds (benzo(a)anthracene, benzo(b)perylene, chrysene, and indeno(1,2,3-cd)pyrene) were also indicated to exceed the bench mark values. However, none of the PAH compounds were detected at concentrations that exceed the FDEP cleanup goals.

Arsenic and beryllium were detected in subsurface soil samples at concentrations that exceeded bench mark values, which are based on values for a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with concentrations of arsenic and beryllium that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300) (see Table C-7, Appendix C).

Because the land features at NAVSTA Mayport are influenced by the deposition of dredge material from Mayport Turning Basin, it cannot be determined whether the concentrations of arsenic and beryllium are related to a release at SWMU 28, or are residual concentrations from the dredge material.

Groundwater. Only one target analyte, thallium, was determined to be a chemical of potential concern. Thallium was detected as a single occurrence and exceeded the USEPA Region III RBC (0.29  $\mu\text{g/l}$ ), but not the FDEP guidance concentration (2  $\mu\text{g/l}$ ) (see Table C-8, Appendix C). The FDEP guidance concentration is a promulgated standard. Also, thallium was not detected in surface or subsurface soil samples, therefore, SWMU 28 is not likely the source for this analyte in groundwater.

7.5.2 Recommendations SWMU 28 is recommended for no further investigation at this time based on the following rationale.

- No pesticides or PCBs were detected in surface or subsurface soil samples.
- None of the VOCs (acetone, methylene chloride, and xylenes) were detected in the surface soil samples collected at SWMU 28 at concentrations that exceeded the bench mark values.
- None of the VOCs (2-butanone, acetone, carbon disulfide, and xylenes) were detected in the subsurface soil samples collected at SWMU 28 at concentrations that exceeded the bench mark values.
- None of the PAH compounds were detected at concentrations that exceed the FDEP cleanup goals.
- Arsenic and beryllium were detected in surface and subsurface soil samples at concentrations that exceeded bench mark values, which are based on values for a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with concentrations of arsenic and beryllium that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300).
- Thallium was detected as a single occurrence and exceeded the USEPA Region III RBC, but not the FDEP guidance concentration, which is a promulgated standard. Thallium was not detected in the surface or subsurface soil samples at SWMU 28. SWMU 28 is not likely the source of the thallium detected in the groundwater samples.
- The only extenuating factor is the SVOC 4-chloro-3-methylphenol, which was detected as a single occurrence in a surface soil sample and was determined to be a chemical of potential concern. Currently there are no bench mark criteria to evaluate this compound. Because this analyte was detected in 1 of 35 samples (approximately 2.8 percent) and was not detected in subsurface or groundwater samples, USEPA guidance allows 4-chloro-3-methylphenol not to be considered a chemical of potential concern. (USEPA, 1989b).
- The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely overstate the specific exposure present at the site (i.e., underestimate the concentration that would result in a lifetime excess cancer risk of  $10^{-6}$ ). Because the chemicals were detected in only one or two media (i.e., soil and or groundwater) all of the exposure pathways and assumptions used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in a lower excess cancer risk than  $10^{-6}$ .

## 8.0 SWMU 48, FORMER CHEMISTRY LABORATORY ACCUMULATION AREA

8.1 SITE DESCRIPTION AND BACKGROUND. SWMU 48 was identified from photographs obtained from FDEP, formerly the Florida Department of Environmental Regulation (FDER), files (FDER, 1981) during preparation of the RFA (A.T. Kearney, 1989). The photographs showed numerous plastic and steel containers labeled "mercury waste" stored outside in a grassy field near a fence, ten 55-gallon drums, and approximately 50 smaller plastic containers. Visible in one of the photographs was a half-buried storage tank (believed to be Tank 1432, SWMU 51-S), with an underground, above-grade tank behind it, and a road and fence in front.

It is believed that SWMU 48 is located behind (northwest) the current Chemistry Laboratory at the OWTP (Building 1346, formerly Building 1442), approximately 400 feet from the St. Johns River (Figure 8-1). This agrees with the captions on the photographs, which read "Waste Behind Chemistry Lab" and "Mercury Waste." At the time of the VSI, no drums or containers were observed in the area. The area was not specifically identified during the IAS (ESE, 1986) nor had it been examined for evidence of releases to the environment.

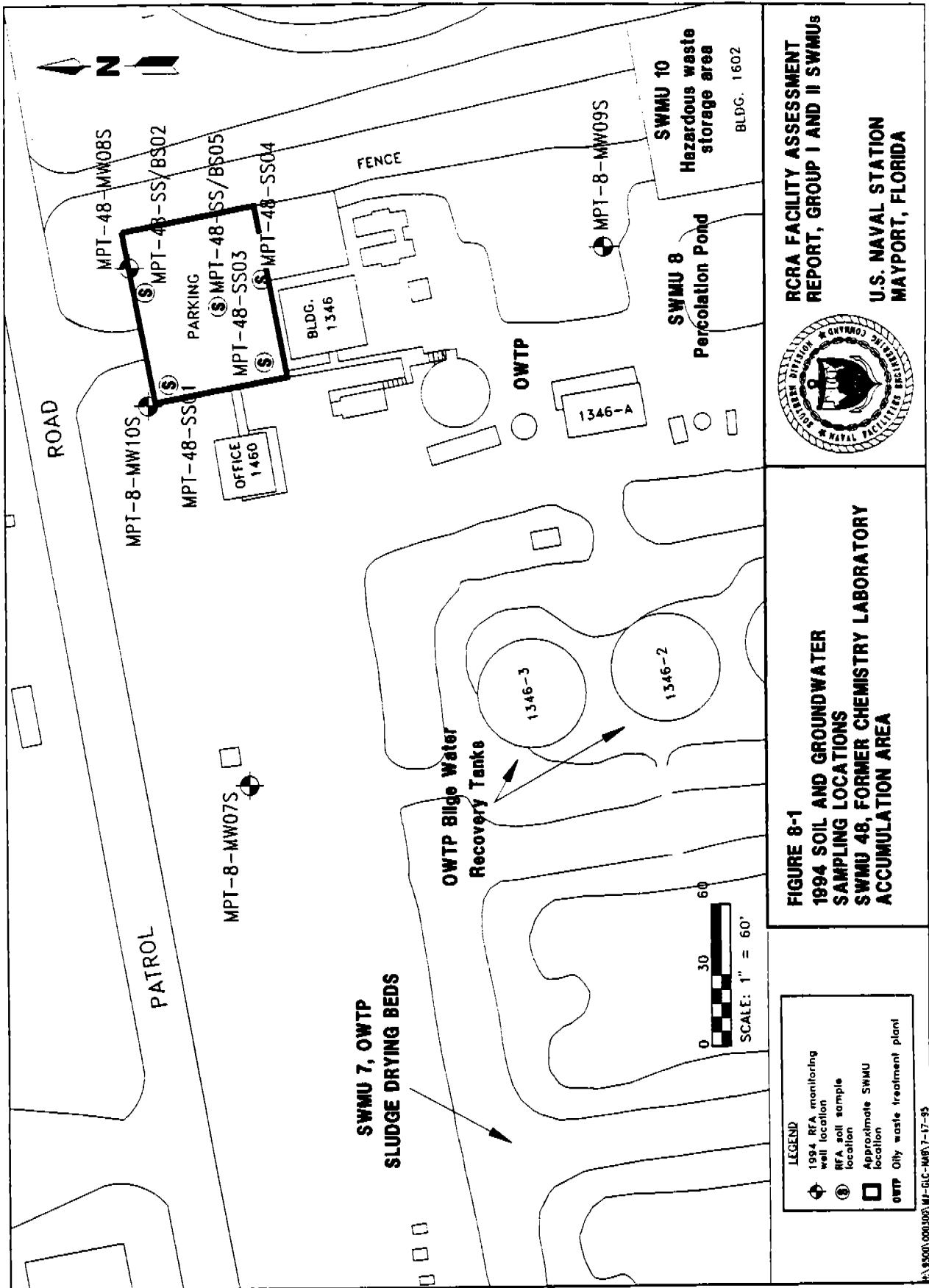
The RFA recommended that the location and areal extent in which these wastes were stored be verified. The RFA also recommended that soil and groundwater samples be collected and analyzed to confirm the presence or absence of any releases of hazardous constituents to the environment. Based on previous site activities, it was recommended that the soil and groundwater samples be analyzed for mercury, other heavy metals, and select volatile and semivolatile organic compounds.

8.2 RFA SV FIELD INVESTIGATIONS. RFA SV field investigations at SWMU 48 included collection of surface soil, subsurface soil, and groundwater samples. Soil sampling was conducted on August 8, 1994. Groundwater sampling occurred between June and August 1994. Soil and groundwater sampling was conducted to assess the potential release of hazardous constituents at the site and to obtain sufficient surface soil, subsurface soil, and groundwater samples to evaluate potential exposure pathways and conduct a preliminary risk screening.

Five surface soil samples and two subsurface soil samples were collected at SWMU 48 (Figure 8-1). The surface soil samples were collected from 0 to 1 foot bls and the subsurface soil samples were collected at 4 to 5 feet bls.

Groundwater samples were collected from two existing monitoring wells (MPT-8-MW07S and MPT-8-MW08S) and two newly installed monitoring wells (MPT-8-MW09S and MPT-8-MW10S) (Figure 8-1). Monitoring wells MPT-8-MW07S and MPT-8-MW08S were sampled previously in 1993. Monitoring well MPT-8-MW07S was not sampled in 1994 due to the presence of floating free-phase hydrocarbons. The floating free-phase hydrocarbons in monitoring well MPT-8-MW07S are believed to be related to a release from SWMUs 6 and 7 (Figure 8-1).

Because many field activities are common to all NAVSTA Mayport SWMUs, the sampling procedures for RFI and RFA SV (confirmatory sampling) events are described in Section 2.1, Summary of Exploration and Sampling Program, of the NAVSTA Mayport GIR (ABB-ES, 1995b). Site-specific elements and deviations from sampling procedures, if any, particular to SWMU 48 are discussed in subsequent paragraphs, and standard operating procedures are referenced where necessary. Monitoring well installation, soil and groundwater sampling procedures,



and associated equipment decontamination procedures were conducted in general conformance with USEPA Region IV standard operating procedures (USEPA, 1991a).

Soil Sample Collection Procedure. Surface and subsurface soil sampling was accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Soil Sampling, of the GIR (ABB-ES, 1995b).

Monitoring Well Installation Procedure. Drilling and well installation were accomplished as described in the NAVSTA Mayport RFI workplan (ABB-ES, 1991), and Subsection 2.1.1, Monitoring Well and Piezometer Installation, of the GIR (ABB-ES, 1995b).

Groundwater Sample Collection Procedure. Groundwater sampling was accomplished as described in Subsection 2.1.4, Groundwater Sampling, of the GIR (ABB-ES, 1995b).

Laboratory Analyses. Soil and groundwater samples were analyzed for the same target analytes including VOCs, SVOCs, pesticides, PCBs, metals, and cyanide selected from the groundwater monitoring list contained in Appendix IX, 40 CFR 264 and USEPA Contract Laboratory Program target compound list and target analyte list. Environmental samples were analyzed using methods from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW 846) (USEPA, 1986). A list of the target analytes is provided in Appendix A and complete analytical results are provided in Appendix B.

**8.3 FINDINGS.** The following presents a brief description of the results of the RFA SV sampling activities at SWMU 48. The results include site geologic and hydrogeologic conditions and results of the analyses of surface and subsurface soil samples and groundwater samples.

Site Geology. Subsurface soil samples were collected to determine the lithology of sediments beneath SWMU 48. During the installation of monitoring wells MPT-8-MW07S, MPT-8-MW08S, MPT-8-MW09S, and MPT-8-MW10S (Figure 8-1) soil samples were collected at discrete 2-foot intervals down to the explored depth of 15.5 feet (Figure 8-1). Soil samples for lithologic information were not submitted for laboratory analyses because these wells were installed outside the SWMU boundary. The shallow monitoring wells were installed with the screens placed across the water table (Table 8-1).

Boring logs for monitoring wells are found in the GIR Appendix A, Boring Logs (ABB-ES, 1995b). The following is a description of the subsurface soils encountered at the boring locations.

- Boring MPT-8-MW07S (located approximately 160 feet west of SWMU 48) encountered a dark brown sand with shells from the land surface to a depth of 2 feet bls overlying a fine-grained sand with shells to the explored depth of 15.5 feet bls.
- Boring MPT-8-MW08S (located at the northeast corner of SWMU 48) encountered a dark brown sand to 2 foot bls beneath a surficial asphalt layer, which was overlying fine-grained sands to the explored depth of 15.5 feet bls. A thin seam of silty sand also was encountered from 7 to 8 feet bls.

**Table 8-1**  
**Monitoring Well Installations Near SWMU 48**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

SWMU Number	Monitoring Well No.	Diameter (inches)	Total Depth (feet)	Screened Interval (feet bls)
8	MPT-8-MW07S	2	15	5 to 15
8	MPT-8-MW08S	2	15	5 to 15
8	MPT-8-MW09S	2	15	5 to 15
8	MPT-8-MW18S	2	15	5 to 15

Notes: SWMU = solid waste management unit.  
bls = below land surface.

- Boring MPT-8-MW09S (located approximately 150 feet south of SWMU 48) encountered surficial seams of sands with medium-sized gravel and silty clay to 1 foot bls overlying silty fine- to medium-grained sands with shells to the explored depth of 15.5 feet bls.
- Boring MPT-8-MW10S (located at the northwest corner of SWMU 48) encountered a silty fine- to medium-grained sand with shells from the land surface to the explored depth of 15.5 feet bls.

Geologic cross sections provided in the NAVSTA Mayport GIR (see Figures 3-5 and 3-6, ABB-ES, 1995b) depict subsurface geologic conditions in the vicinity of SWMU 48.

Site Hydrogeology. The groundwater levels at each monitoring well in the vicinity of SWMU 48 and for other RFI and RFA SV sites at NAVSTA Mayport were measured within a 7-hour period on August 30, 1994. The depth to the groundwater at each location was measured relative to a notch or mark on the north side of each well surveyed to the NGVD of 1929 (commonly referred to as msl). The depths to groundwater measured at each of the SWMU 48 monitoring wells are provided in Appendix G, along with other monitoring wells in the vicinity of the site. Also shown on the table are values for the water level measurements relative to the NGVD datum. The elevation data were used to prepare a map of the potentiometric surface (lines that represent altitudes of equal height above the reference datum) of the water table zone of the surficial aquifer. The potentiometric surface map of the water table is used to infer that groundwater flow is from higher to lower altitudes in a direction perpendicular to the equipotential lines. Based on the equipotential lines shown on Figure 7-2, the groundwater flow direction at SWMU 48 is generally toward the north, toward the St. Johns River.

The hydraulic position of the monitoring wells relative to SWMU 48 also is based on the equipotential lines shown on Figure 7-2. Monitoring well MPT-8-MW09S is located hydraulically upgradient from SWMU 48. Monitoring wells MPT-8-MW08S and MPT-8-MW10S are located on a hydraulic downgradient side of SWMU 48. Monitoring well MPT-8-MW07S is along a similar hydraulic equal potential line as the northern part of SWMU 48. Therefore, monitoring well MPT-8-MW07S is not in the flow path of groundwater beneath SWMU 48.

An approximation of the horizontal linear velocity of groundwater flow in the water table zone of the surficial aquifer in the vicinity of SWMU 48 is based on the potentiometric surface (hydraulic gradient) of the water table, estimates of radial hydraulic conductivities at monitoring well locations, and an estimate of the porosity (ratio of the volume of voids to total volume of the soil) of the saturated subsurface soil. The horizontal linear velocity was calculated from a modified form of Darcy's equation and represents the ratio of linear travel distance to travel time between two points (Freeze and Cherry, 1979). The horizontal linear velocity is expressed as  $V_D/N_e$ , where  $V_D$  is the Darcy velocity ( $V_D = KI$ , where  $K$  is radial hydraulic conductivity and  $I$  is hydraulic gradient) and  $N_e$  is the effective porosity of the saturated geologic stratum. An effective porosity of 0.35 is used in calculations. (See Section 3.2.3, Physical Characteristics of Soil, in the NAVSTA Mayport GIR, ABB-ES, 1995b).

*In-situ* radial hydraulic conductivity values for monitoring wells in the vicinity of SWMU 48 are presented in Table 8-2. The range of *in-situ* radial hydraulic conductivity values in the vicinity of SWMU 48 are approximately 1 foot per day (MPT-8-MW08S) to 2.1 feet per day (MPT-8-MW07S). The hydraulic gradient appears to be relatively uniform over SWMU 48 (0.008 ft/ft on August 30, 1994) and an approximation of the horizontal linear velocity of the groundwater ranges from approximately 0.02 to 0.05 foot per day.

Based on the values for horizontal linear velocity and assuming no dilution, dispersion, or retardation, a contaminant in the water table zone of the surficial aquifer may travel at rates of 8 to 17 feet per year (Table 8-2).

**Table 8-2**  
**Average Groundwater Velocities at SWMU 48**

Groups I and II RFA SV Report  
U. S. Naval Station  
Mayport, Florida

Location	Estimated Effective Porosity	Hydraulic Conductivity (feet per day)	Estimated Gradient <sup>1</sup> (feet per foot)	Estimated Linear Velocity (feet per day)	Estimated Linear Velocity (feet per year)
MPT-2-MW07S	0.35	2.1 <sup>2</sup>	0.008	0.05	17
MPT-2-MW08S	0.35	1.0 <sup>2</sup>	0.008	0.02	8

<sup>1</sup> Based on synoptic water table elevations, August 30, 1994.

<sup>2</sup> *In-situ* conductivity measurement at MPT-2-MW08S during December 1994.

Note: SWMU = solid waste management unit.

Surface and Subsurface Soil Analytical Results. Tables 8-3 and 8-4 summarize the validated analytical results for target analytes detected in surface and subsurface soil samples collected at SWMU 48. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Tables 8-5 and 8-6 for surface and subsurface soil samples, respectively. Bench mark comparison values consist of background screening values computed from station wide surface and subsurface soil samples (ABB-ES, 1995b), the USEPA soil screening guidance values (USEPA, 1994), USEPA Region III RBC (USEPA, 1995) and the State of Florida cleanup goals (FDEP, 1995). The state of Florida cleanup goals consist of residential values for surface soils and industrial worker values for subsurface soil.

Each of the bench mark criteria provided in Tables 2-6 and 2-7 is human health based and represents the lower of either a noncarcinogenic HI of 1, where values of less than 1 represent a concentration where noncarcinogenic effects are not likely or a lifetime excess cancer risk of  $10^{-6}$ , which represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure. The concentrations listed for the USEPA Region III RBCs correspond to an HI of 0.1, whereas the USEPA Superfund SSLs and the State of Florida cleanup goals are based on an HI of 1. The NCP (40 CFR, Part 300) states that for carcinogens a lifetime excess cancer risk in the range of  $10^{-4}$  (a chance of 1 in 10,000 for an adverse carcinogenic effect for a continuous lifetime exposure) to  $10^{-6}$  represents concentrations that are considered by USEPA to be protective of human health.

Target analytes detected in the surface soil samples consist of 2 VOCs (carbon disulfide and xylenes), 7 SVOCs (fluoranthene, pyrene, benzo(a)anthracene, chrysene, di-n-octylphthalate, benzo(b)fluoranthene, and benzo(k)fluoranthene), and 14 inorganics (antimony, arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, thallium, tin, vanadium, zinc, and cyanide) (Table 8-3). Pesticides and PCBs were not detected in the surface soil samples.

Target analytes detected in the subsurface soil samples consisted of 10 inorganics (arsenic, barium, chromium, copper, lead, mercury, nickel, tin, vanadium, and zinc). No VOCs, SVOCs, pesticides, or PCBs were detected in the subsurface soil samples.

Groundwater Analytical Results. A summary of groundwater quality parameters is provided in Table 8-7 and Tables 8-8 and 8-9 summarize the validated analytical results for organic and inorganic target analytes detected in groundwater samples collected at SWMU 48. A summary of frequencies of detection, range of detection limits, range of detected concentrations, arithmetic mean, and bench mark comparison values are provided in Table 8-10. Bench mark comparison values consist of background screening values computed from station wide background groundwater samples (ABB-ES, 1995b), USEPA Region III RBCs (USEPA, 1995), and Florida Groundwater guidance values (FDEP, 1994).

Each of the bench mark criteria provided in Table 8-10 is human health based and represents the lower of either a noncarcinogenic HI of 1 or a lifetime excess cancer risk of  $10^{-6}$ . Bench mark values for a noncarcinogenic HI of 1 represent a concentration where noncarcinogenic effects are not likely. A bench mark value for a lifetime excess cancer risk of  $10^{-6}$  represents a chance of 1 in 1,000,000 for an adverse carcinogenic effect for a continuous lifetime exposure.

The water quality parameters for the SWMU 48 groundwater monitoring wells were compared to the State of Florida secondary water quality criteria (Table 8-7). Values determined for color exceeded the State of Florida secondary water quality criteria for two of the groundwater samples and equaled the criteria in one of the samples. These criteria are used to assess potable water from a water supply system and may not be directly applicable to a groundwater sample collected from a monitoring well. Values determined for hardness as  $\text{CaCO}_3$  suggest that the groundwater would be considered very hard (greater than 180 mg/l for the



**Table 8-3**  
**Organic and Inorganic Analytes Detected in Surface Soil Samples at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	M7705 MPT-48-SS01	M7705 MPT-SS-SS02	M7705 MPT-48-SS03	M7705 MPT-48-SS04	M7705 MPT-48-SS04	M7705 MPT-48-SS04	M7705 MPT-48-SS05
Sample Location:	8SS00101	48SS00201	48SS00301	48SS00401	48SS00401Dup	48SS00501	
Sample No.:	08-AUG-94	08-AUG-94	08-AUG-94	08-AUG-94	08-AUG-94	08-AUG-94	
Date Sampled	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 1	
Sample Depth (ft bis):							
<b>VOCs (8240) (µg/kg)</b>							
Carbon disulfide	--	--	--	--	2 J	--	--
Xylenes (total)	--	2 J	2 J	8	9	1 J	
<b>SVOCs (8270) (µg/kg)</b>							
Fluoranthene	--	--	--	--	32 J	--	--
Pyrene	--	--	--	--	32 J	--	--
Benzo(a)anthracene	--	--	--	--	26 J	--	--
Chrysene	--	--	--	--	30 J	--	--
Benzo(k)fluoranthene	--	--	--	--	18 J	--	--
Benzo(b)fluoranthene	--	--	--	--	21 J	--	--
Di-n-octylphthalate	--	22 J	--	--	--	--	--
<b>Inorganics (mg/kg)</b>							
Antimony	--	.78 J	--	--	--	--	--
Arsenic	.31 J	.23 J	.28 J	.48 J	.54 J	0.7 J	
Barium	5 J	5.2 J	6.1 J	8.8 J	7.7 J	5.1 J	
Chromium	2.4	2.8	3.1	5.2	4	3.0 J	
Cobalt	--	--	--	.57 J	--	--	--
Copper	--	--	--	--	16.1 J	--	--
Lead	--	3.8 J	--	7.5 J	--	--	--

See notes at end of table.

**Groups I and II RFA SV Report**  
**U.S. Naval Station**  
**Mayport, Florida**

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  
 Suffix Dup = duplicate of the environmental sample.

SWMU = solid waste management unit.  
ft bis = sample collection depth in feet below land surface  
VOCs = volatile organic compounds.  
 $\mu\text{g/kg}$  = micrograms per kilogram.  
-- = analyte not detected.  
"j" = estimated value.  
SVOCs = semivolatile organic compounds.  
 $\text{mg/kg}$  = milligram per kilogram.

**Table 8-4  
Inorganic Analytes Detected in Subsurface Soil Samples at  
SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch	M7705	M7705
Sample Location:	MPT-48-BS02	MPT-BS-BS05
Sample No.:	48BS00205	48BS00505
Date Sampled	08-AUG-94	08-AUG-94
Sample Depth (ft bls):	4 - 5	4 - 5
<b>Inorganics (mg/kg)</b>		
Arsenic	2.5 J	0.68 J
Barium	10.1 J	7.0 J
Chromium	6.8	3.7
Copper	0.95 J	07X 15.6 J
Lead	4.0 J	
Mercury	0.15 J	-
Nickel	2.0 J	2.3 J
Tin	3.0 J	2.6 J
Vanadium	6.4 J	2.0 J
Zinc		10 J
<p>Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.  Suffix Dup = duplicate of the environmental sample.</p> <p>SWMU = solid waste management unit.  ft bls = sample collection depth in feet below land surface.  mg/kg = milligram per kilogram.  "J" = estimated value.  - = analyte not detected.</p>		

**Table 8-5**  
**Chemicals of Potential Concern in Surface Soil at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b>Volatiles (µg/kg)</b>										
Carbon disulfide	1/5	5 to 5	2.25**	2.3	ND	780,000	7,800,000	2,600	No	S, P, G
Xylenes (total)	4/5	5 to 5	1 to 8.5*	3.4	NA	16,000,000	160,000,000	6,400,000	No	S, P, G
<b>Semivolatiles (µg/kg)</b>										
Benzo(a)anthracene	1/5	350 to 1,800	100.5*	101	ND	880	900	1,400	No	S, P, G
Benzo(b)fluoranthene	1/5	350 to 1,800	98*	98	ND	880	900	1,400	No	S, P, G
Chrysene	1/5	350 to 1,800	102.5*	103	ND	88,000	88,000	140,000	No	S, P, G
Di-n-octylphthalate	1/5	350 to 1,800	22	22	ND	160,000	1,600,000	1,500,000	No	S, P, G
Fluoranthene	1/5	350 to 1,800	103.5*	104	ND	310,000	3,100,000	2,800,000	No	S, P, G
Pyrene	1/5	350 to 1,800	103.5*	104	ND	230,000	2,300,000	2,200,000	No	S, P, G
<b>Pesticides/PCBs (µg/kg)</b>										
No analytes detected										
<b>Inorganics (mg/kg)</b>										
Antimony	1/5	1.04 to 1.06	0.78	0.78	ND	3.1	31	26	No	S, P, G
Arsenic	5/5	2.08 to 2.12	0.23 to 0.7	0.41	ND	0.37	0.4	0.7	Yes	S, P, G
Barium	5/5	41.58 to 42.33	5 to 8.25*	5.9	5.6	550	5,500	5,000	No	S, P, G
Chromium	5/5	2.08 to 2.12	2.4 to 4.6*	3.2	2.6	1039	390	150	No	S, P, G
Cobalt	1/5	10.395 to 10.58	2.88*	2.9	ND	470	NA	4,700	No	S, G
Copper	1/5	5.195 to 5.29	9.35*	9.4	2.2	290	NA	2,900	No	S, G
Lead	2/5	0.62 to 0.63	3.8 to 3.905*	3.9	ND	11,400	400	500	No	S, P, G
Mercury	1/5	0.04 to 0.04	0.08	0.08	ND	2.3	23	23	No	S, P, G
Nickel	1/5	8.315 to 8.47	3.88*	3.9	ND	160	1,600	1,500	No	S, P, G
Thallium	1/5	2.08 to 2.12	0.29	0.29	1.8	120.63	NA	NA	No	B
Tin	5/5	10.395 to 10.58	2.5 to 4.1025*	3	ND	4,700	NA	44,000	No	S, G
Vanadium	5/5	10.395 to 10.58	2.1 to 3.8*	2.7	4	55	550	480	No	B
Zinc	2/5	4.155 to 4.23	7.1 to 11.05*	9.1	2.6	2,300	23,000	23,000	No	S, P, G
Cyanide	2/5	2.08 to 2.12	0.04	0.04	ND	160	1,600	1,600	No	S, P, G

See notes on next page.

**Table 8-5 (Continued)**  
**Chemicals of Potential Concern in Surface Soil at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Notes from previous pages.

- <sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).
- <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- <sup>6</sup> Source: USEPA. December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- <sup>7</sup> Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the aggregate resident based on a cancer risk of  $10^{-6}$  and the child resident based on a hazard quotient of 1.
- <sup>8</sup> Analytes were included or excluded from the risk assessment for the following reasons:  
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- <sup>9</sup> The value is based on arsenic as a carcinogen.
- <sup>10</sup> The value is based on chromium hexavalent form.
- <sup>11</sup> USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.
- <sup>12</sup> The value is based on thallium as thallium sulfate.

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include:

Background sample locations include: MPT-B-SS1; MPT-B-SS2; MPT-B-SS3; MPT-B-SS4; MPT-B-SS5; MPT-B-SS6  
Duplicate background sample locations include: MPT-B-SS1DUP

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

$\mu\text{g}/\text{kg}$  = micrograms per kilograms.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

$\text{mg}/\text{kg}$  = milligrams per kilograms.

**Table 8-6**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations	Mean of Detected Concentrations <sup>3</sup>	Background Screening Value <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Superfund Proposed Soil Screening Levels <sup>6</sup>	Cleanup Goals for the Military Sites in Florida <sup>7</sup>	Analyte CPC? (Yes/No)	Reason <sup>8</sup>
<b><u>Volatiles (µg/kg)</u></b>										
No analytes detected										
<b><u>Semivolatiles (µg/kg)</u></b>										
No analytes detected										
<b><u>Pesticides/PCBs (µg/kg)</u></b>										
No analytes detected										
<b><u>Inorganics (mg/kg)</u></b>										
Arsenic	2/2	2.12 - 2.56	0.68 - 2.5	1.6	0.9	90.37	0.4	3. 74,000	Yes	S, P, G
Barium	2/2	42.46 - 51.15	7 - 10.1	8.6	7.2	550	5,500	10,220	No	S, P, G
Chromium	2/2	2.12 - 2.56	3.7 - 6.8	5.3	3.4	1039	390	110,000	No	B
Cobalt	1/2	10.62 - 12.79	0.95	0.95	1.04	470	NA	72,000	No	S, G
Copper	1/2	5.31 - 6.39	15.6	15.6	3.6	290	NA	1,000	No	S, P, G
Lead	2/2	0.64 - 0.77	3.5 - 4	3.8	2.8	11400	400	480	No	S, P, G
Mercury	1/2	0.04 - 0.05	0.15	0.15	0.06	2.3	23	11,000	No	S, P, G
Nickel	2/2	8.49 - 10.23	2 - 2.3	2.2	ND	160	1,600	660,000	No	B
Tin	2/2	10.62 - 12.79	2.6 - 3	2.8	5.4	4,700	NA	4,800	No	S, P, G
Vanadium	2/2	10.62 - 12.79	2 - 6.4	4.2	3.2	55	550	550,000	No	S, P, G
Zinc	1/2	4.25 - 5.12	10	10	4.8	2,300	23,000	550,000	No	S, P, G

See notes on next page.

**Table 8-6 (Continued)**  
**Chemicals of Potential Concern in Subsurface Soil at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

- 1 Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values).
- 2 Value indicated by asterisk is the average of a sample and its duplicate. For duplicate samples having one nondetected value, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate.
- 3 The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier).
- 4 The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. Organic values are one times the mean of detected concentration. Organic values are included for comparison purposes only.
- 5 For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for residential surface soil exposure per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from the USEPA Region III RBC tables dated February 1995, and are based on a cancer risk of  $10^{-6}$  and an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs).
- 6 Source: USEPA. December, 1994. Soil Screening Guidance, Review Draft, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/R-94/101.
- 7 Values are taken from the Florida Department of Environmental Protection memorandum, Cleanup Goals for Military Sites in Florida, dated April 5, 1995. The values are for the Industrial Worker based on a cancer risk of  $10^{-6}$  and the general worker based on a hazard quotient of 1.
- 8 Analytes were included or excluded from the risk assessment for the following reasons:  
  - S = the maximum detected concentration did not exceed the screening concentration and will not be considered further.
  - G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further.
  - B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations.
  - F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study.
  - C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)).
  - M = the analyte was detected at less than 5 percent and is a CPC in more than one media.
  - P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994.
- 9 The value is based on arsenic as a carcinogen.
- 10 The value is based on chromium hexavalent form.
- 11 USEPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.4-12 revised Interim recommended soil cleanup for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites.

Notes: The average of a sample and its duplicate is used for all table calculations.

**Sample locations include:**

Duplicate sample locations include:

Background sample locations include: MPT-B-BS01; MPT-B-BS04; MPT-B-BS05; MPT-B-BS06

Duplicate background sample locations include: MPT-B-BS1DUP

SWMU = solid waste management unit.

CPC = chemicals of potential concern.

$\mu\text{g/kg}$  = micrograms per kilograms.

PCBs = polychlorinated biphenyls.

$\text{mg/kg}$  = milligrams per kilograms.

NA = not available.

ND = not detected in any background samples.

**Table 8-7**  
**Water Quality Parameters for Groundwater at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analytical Batch No.:		M7505	M7515	M7492	
Sample Matrix:		Groundwater	Groundwater	Groundwater	
Sample Location:		MPT-8-MW08S	MPT-8-MW09S	MPT-8-MW10S	Secondary <sup>1</sup> Water Quality Criteria
Sample No.:		08MW008S	08MW009S	08MW010S	
Date Sampled:		09-JUL-94	09-JUL-94	09-JUL-94	
Common Name	Units	Conc.	Conc.	Conc.	Conc.
Alkalinity as CaCO <sub>3</sub>	mg/l	224	3,390	238	-
Ammonia nitrogen	mg/l	-	7.6	-	-
Chloride	mg/l	906	3,790	29.6	250,000
Color	APHA	25	70	15	15
Hardness as CaCO <sub>3</sub>	mg/l	224	7,180	300	-
Nitrate + nitrite nitrogen	mg/l	0.52	0.38	3.69	10,000
Oil and Grease	mg/l	NA	NA	NA	-
Phosphorous P, total	mg/l	0.21	NA	0.58	-
Sulfate	mg/l	167	-	54.5	250,000
Sulfide	mg/l	-	15.1	-	-
Total dissolved solids	mg/l	NA	NA	NA	500
Total Kjeldahl nitrogen	mg/l	-	15.2	1.3	-
Total organic carbon	mg/l	NA	NA	NA	-
pH	SU	7	6.2	7.47	6.5 to 8.5

<sup>1</sup> Secondary Water Quality Criteria, Chapter 62-550.320, Florida Administrative Code (FAC).

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

SWMU = solid waste management unit.

Conc. = concentration.

CaCO<sub>3</sub> = calcium carbonate.

mg/l = milligrams per liter.

- = analyte not detected.

APHA = American Public Health Association.

NA = not available.

SU = standard units.



**Table 8-8**  
**Organic Analytes Detected in Groundwater Samples at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.:	23921	23918	R8710	R8710	R8710	R8710
Sample Location:	MPT-8-MW07S	MPT-8-MW08S	MPT-8-MW08S	MPT-8-MW09S	MPT-8-MW10S	MPT-8-MW10S
Sample No.:	MPT8MW7S	MPT8MW8S	08MW008S	08MW009S	08MW010S	08MW010SDup
Date Sampled	01-FEB-93	01-FEB-93	09-JUL-94	26-AUG-94	09-SEP-94	09-SEP-94
<b>VOCs (8240) (µg/l)</b>						
2-Butanone	--	--	--	230 J	--	--
Acetone	--	--	--	330 J	--	--
Benzene	2 J	--	--	--	--	--
Carbon disulfide	2 J	--	--	4 J	--	--
Ethylbenzene	21	--	--	--	--	--
Methylene Chloride	--	4 J	--	--	--	--
Toluene	--	--	--	3 J	--	--
<b>SVOCs (8270) (µg/l)</b>						
Fluorene	5 J	--	--	--	--	--
2-Methylnaphthalene	120	--	--	--	--	--
Naphthalene	130	--	--	--	--	--
2-Methylphenol	--	--	--	180	--	--
2,4-Dimethylphenol	--	--	--	180	--	--
3- & 4-Methylphenol (2)	--	--	--	480	--	--
Diethylphthalate	--	--	--	20 J	--	--

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Suffix Dup = duplicate of environmental sample.

SWMU = solid waste management unit.

VOCs = volatile organic compounds.

µg/l = micrograms per liter.

-- = analyte not detected.

"J" = estimated value.

SVOCs = semivolatile organic compounds.

**Table 8-9**  
**Inorganic Analytes Detected in Groundwater Samples at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte Batch No.: Sample Location: Sample No.: Date Sampled	23921 MPT-8-MW07S MPT8MW7S 01-FEB-93	23918 MPT-8-MW08S MPT8MW8S 01-FEB-93	R8710 MPT-8-MW08S 08MW008S 09-JUL-94	R8710 MPT-8-MW09S 08MW009S 26-AUG-94	R8710 MPT-8-MW10S 08MW010S 09-SEP-94	R8710 MPT-8-MW10S 08MW010SDup 09-SEP-94
<b>Inorganics (µg/l)</b>						
Arsenic	41.2	20.7	5.6 J	.6 J	1.8 J	1.1 J
Barium	67.6 J	28.1	8.4 J	112 J	6.2 J	6.3 J
Beryllium	1.6 J	0.98 J	--	--	--	--
Calcium	--	--	33,800	1,830,000	79,600	77,100
Chromium	40.9	36.8	--	--	--	--
Cobalt	11.7 J	7.1 J	--	--	--	--
Copper	15.4 J	3.4 J	--	--	--	--
Iron	--	--	88 J	4,820	--	--
Lead	45.9	10.4	--	--	--	--
Magnesium	--	--	28,100	401,000	17,100	16,500
Manganese	--	--	12 J	2,260	21.5	19.2
Mercury	0.29	--	--	--	--	--
Nickel	19.9 J	--	--	--	--	--
Selenium	--	--	--	--	1.9 J	1.2 J
Silver	2.1 J	--	--	--	--	--
Sodium	NA	NA	675,000	1,810,000	24,100	23,100
Tin	--	--	--	--	--	--
Vanadium	60.3	48.0 J	--	8.3 J	3 J	2 J
Zinc	127	52.2	--	16.5 J	--	--
Cyanide	12.8	--	--	--	--	--

Notes: Laboratory data validated at Naval Energy and Environmental Support Activity (NEESA) Level C.

Suffix Dup = duplicate of environmental sample.

SWMU = solid waste management unit.

µg/l = micrograms per liter.

"J" = estimated value.

-- = analyte not detected.

NA = target analyte not analyzed.

**Table 8-10**  
**Chemicals of Potential Concern in Groundwater at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations	Background Screening Concentration <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
<b>Volatiles (µg/l)</b>									
2-Butanone	1/3	10 - 20	230 - 230	230	ND	190	4200	Yes	
Acetone	1/3	10 - 20	330 - 330	330	ND	370	700	No	S, G
Carbon disulfide	1/3	5 - 10	4 - 4	4	1	2.1	700	Yes	
Toluene	1/3	5 - 10	3 - 3	3	ND	1,600	40	No	S, G
<b>Semivolatiles (µg/l)</b>									
2,4-Dimethylphenol	1/3	10 - 80	180 - 180	180	ND	73	400	Yes	
2-Methylphenol	1/3	10 - 80	180 - 180	180	ND	180	350	No	S, G
3- & 4-Methylphenol	1/3	10 - 80	480 - 480	480	29	18	35	Yes	
Diethylphthalate	1/3	10 - 80	20 - 20	20	ND	2,900	5,600	No	S, G
<b>Pesticides/PCBs (µg/l)</b>									
No Analytes Detected									
<b>Inorganics (µg/l)</b>									
Arsenic	3/3	0.6 - 10	0.6 - 5.6	2.6	11.4	<sup>9</sup> 0.038	50	No	B
Barium	3/3	0.4 - 200	6.25* - 112	42.2	10.2	260	2,000	No	S, G
Calcium	3/3	41.7 - 5,000	33,800 - 1,830,000	647,383	170,450	1,055,398	NA	Yes	
Iron	2/3	9.1 - 100	88 - 4,820	2,454	2,076	13,267	300	Yes	
Magnesium	3/3	31.4 - 5,000	16,800* - 401,000	148,633	21,234	118,807	NA	Yes	
Manganese	3/3	0.6 - 15	12 - 2,260	764	185.8	18	50	Yes	
Selenium	1/3	0.6 - 30	1.55*	1.5	11.8	18	NA	No	B
Sodium	3/3	14.4 - 5,000	23,600* - 1,810,000	836,200	18,624	396,022	160,000	Yes	
Vanadium	2/3	1.5 - 50	2.5* - 8.3	5.4	10.6	26	49	No	B
Zinc	1/3	1 - 20	16.5	16.5	50	1,100	5,000	No	B

See notes on next page.

**Table 8-10 (Continued)**  
**Chemicals of Potential Concern in Groundwater at SWMU 48**

Groups I and II RFA SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte	Frequency of Detection <sup>1</sup>	Range of Reporting Limits	Range of Detected Concentrations <sup>2</sup>	Mean of Detected Concentrations	Background Screening Concentration <sup>4</sup>	Risk Based Screening Concentration <sup>5</sup>	Florida Guidance Concentration <sup>6</sup>	Analyte CPC? (Yes/No)	Reason <sup>7</sup>
<sup>1</sup> Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (excluding rejected values). <sup>2</sup> Value indicated by asterisk is the average of a sample and its duplicate. For nondetected values, 1/2 the contract required quantitation limit or contract required detection limit (CRDL) is used as a surrogate. <sup>3</sup> The mean of detected concentrations is the arithmetic mean of all samples in which the analyte was detected including values qualified with a "J"; it does not include those samples where the analyte was not detected ("U" or "UJ" qualifiers) and rejected ("R" qualifier). <sup>4</sup> The background screening value is twice the average of detected concentrations for inorganic analytes in background samples. <sup>5</sup> For all chemicals except the essential nutrients (calcium, iron, magnesium, potassium, and sodium), U.S. Environmental Protection Agency (USEPA) Region III risk based concentrations (RBC) for tap water per January 1993 guidance (Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening, EPA/903/R-93-001) was used for screening. Actual values are taken from RBC Table dated February 1995, and are based on a cancer risk of 10 <sup>-6</sup> or an adjusted hazard quotient of 0.1. For the essential nutrients, screening values were derived based on recommended daily allowances (RDAs). <sup>6</sup> Florida Department of Environmental Protection Groundwater Guidance Concentrations (June 1994). <sup>7</sup> Analytes were included or excluded from the risk assessment for the following reasons: S = the maximum detected concentration did not exceed the screening concentration and will not be considered further. G = the maximum detected concentration did not exceed the Florida cleanup goals and will not be considered further. B = the maximum detected concentration did not exceed twice the arithmetic mean of detected concentrations at background locations. F = the frequency of detection was less than 5 percent and professional judgment was used to exclude analyte from further study. C = the analyte is a member of a chemical class that contains other chemicals of potential concern (CPCs) (i.e., carcinogenic polynuclear aromatic hydrocarbons (PAHs)). M = the analyte was detected at less than 5 percent and is a CPC in more than one media. P = the maximum detected concentration did not exceed the USEPA proposed soil screening levels (SSLs), 9355.4-14FS, dated December 1994. * The value is based on arsenic as a carcinogen. * The value is based on chromium hexavalent form. <sup>10</sup> Treatment technology action limit for drinking water distribution systems per "National Primary Drinking Water Regulations" 40 CFR 141 as amended in 57 FR 41345, August 3, 1993. <sup>11</sup> The values is based on thallium as thallium sulfate.									

Notes: The average of a sample and its duplicate is used for all table calculations.

Sample locations include:

Duplicate samples include:

Background sample locations include: 01MW001, 08MW005S, 08MW001S, 05MW001R, 8MW5S, MPT-1-MW1-1, MPT-S-1-1, AND S1

CPCs = chemicals of potential concern.

µg/l = micrograms per liter.

ND = not detected in any background samples.

NA = not available.

PCBs = polychlorinated biphenyls.

groundwater collected from the monitoring wells [Durfor and Becker, 1964]). The highest value obtained for hardness was for the groundwater sample from monitoring well MPT-8-MW09S, which is hydraulically upgradient of SWMU 48 (Figure 7-2).

Target analytes detected in the groundwater samples consisted of 7 VOCs (2-butanone, acetone, benzene, carbon disulfide, ethylbenzene, methylene chloride, and toluene), 7 SVOCs (fluorene, 2-methylnaphthalene, naphthalene, 2-methylphenol, 2,4-dimethylphenol, 3- and 4-methylphenol (2), and diethylphthalate) (Table 8-8), and 20 inorganics (arsenic, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, selenium, silver, sodium, tin, vanadium, zinc and cyanide) (Table 8-9).

VOCs and SVOCs detected in monitoring wells MPT-8-MW07S and MPT-8-MW09S are not related to a release from SWMU 48. Monitoring well MPT-8-MW07S is hydraulically side gradient to SWMU 48 and not in a flow path that would intercept contaminants from this SWMU. Monitoring well MPT-8-MW09S is hydraulically upgradient from SWMU 48.

Nine of the inorganic analytes (beryllium, chromium, cobalt, copper, lead, mercury, nickel, silver, and cyanide) detected in groundwater samples collected in 1993 were not detected in samples collected in 1994. This may be a result of using different sampling methods. The groundwater sampling event in 1993 used bailers to purge stagnant water within the well casing and collect a groundwater sample. This method generally produces water samples that are turbid and contain silt or clay materials. Preserving the samples with nitric acid to a pH of 2 Standard Units leaches metals from the sediment. The inorganic target analytes detected in 1993 that were not detected in 1994 are likely attributable to turbid groundwater samples.

The purging and sampling methodology used in the 1994 sampling event was a low flow method that generally does not produce a turbid groundwater sample. Samples produced by this method are generally more representative of the groundwater in an aquifer zone.

#### 8.4 PRELIMINARY RISK EVALUATION.

Surface Soil. None of the VOCs or SVOCs detected in the surface soil samples exceeded the bench mark values. Only one inorganic analyte, arsenic, exceeded the bench mark values. Arsenic was not detected in surface soil background samples. Concentrations of arsenic exceeded the USEPA Region III RBC (0.37 mg/kg) and the proposed Superfund SSL (0.4 mg/kg) in two samples and a duplicate. One of the samples (MPT-48-SS05) contained arsenic at a concentration of 0.7 mg/kg which is the same as the Florida cleanup goal.

Subsurface Soil. VOCs, SVOCs, pesticides, and PCBs were not detected in the subsurface soil samples. One of two samples exceeded the background screening value (0.9 mg/kg) for arsenic. Concentrations of arsenic exceeded the USEPA Region III RBC and the proposed Superfund SSL in the two subsurface soil samples. The FDEP cleanup goal (3 mg/kg) for an industrial worker was not exceeded.

Groundwater. Analytical results from 1993 were not used in the preliminary risk evaluation for the following reasons: monitoring well MPT-8-MW07S is not in a hydraulically downgradient position relative to SWMU 48, the methylene chloride detected in the 1993 groundwater sample from monitoring well MPT-8-MW08S is

likely a laboratory derived contaminant, and the inorganic results from this sampling event are biased high because of turbid groundwater samples.

Two VOCs (2-butanone and carbon disulfide) and two SVOCs (2,4-dimethylphenol and 3- & 4-methylphenol) detected in monitoring well MPT-8-MW09S exceeded bench mark values. Concentrations of 2-butanone (280  $\mu\text{g}/\ell$ ) and carbon disulfide (4  $\mu\text{g}/\ell$ ) exceeded their respective USEPA Region III RBC (190 and 2.1  $\mu\text{g}/\ell$ ), but not the FDEP guidance values (4,200 and 700  $\mu\text{g}/\ell$ ). One of the SVOCs (2,4-dimethylphenol, 180  $\mu\text{g}/\ell$ ) exceeded the USEPA Region III RBC (73  $\mu\text{g}/\ell$ ), but not the FDEP Guidance value (400  $\mu\text{g}/\ell$ ) and the other SVOC (3- & 4-methylphenol, 480  $\mu\text{g}/\ell$ ) exceeded the USEPA Region III RBC (18  $\mu\text{g}/\ell$ ) and the FDEP guidance value (35  $\mu\text{g}/\ell$ ). It should be noted that these organic compounds were detected in samples from monitoring well MPT-8-MW09S, which is hydraulically upgradient from SWMU 48; therefore, these analytes are not attributable to a release from SWMU 48.

Five of the inorganic analytes (calcium, iron, magnesium, manganese, and sodium) exceeded background screening values and bench mark values in the groundwater sample collected from monitoring well MPT-8-MW09S. Only samples from one other monitoring well, MPT-8-MW08S, contained concentrations of magnesium and sodium that exceeded the background screening values and bench mark values.

The concentrations of calcium, iron, magnesium, manganese, and sodium detected in the groundwater sample from monitoring well MPT-8-MW09S and background and bench mark values exceeded are as follows.

Analyte	Concentration ( $\mu\text{g}/\ell$ )	Background Screening Value ( $\mu\text{g}/\ell$ )	USEPA Region III RBC ( $\mu\text{g}/\ell$ )	FDEP Cleanup Goal ( $\mu\text{g}/\ell$ )
Calcium	1,830,000	170,450	1,055,398	NA
Iron	4,820	2,076	13,267	300
Magnesium	401,000	21,234	118,807	NA
Manganese	2,260	185.8	18	50
Sodium	1,810,000	18,624	396,022	160,000

Notes:  $\mu\text{g}/\ell$  = micrograms per liter.  
NA = no bench mark value established.

Magnesium was detected in the groundwater sample collected from monitoring well MPT-8-MW08S at a concentration (28,100  $\mu\text{g}/\ell$ ) that exceeded the background screening value, but not the USEPA Region III RBC. The concentration of sodium detected in the groundwater sample collected from monitoring well MPT-8-MW08S exceeded the background screening value and the USEPA Region III RBC.

It should be noted that the inorganic analytes detected in groundwater samples collected from monitoring well MPT-8-MW09S, which is hydraulically upgradient from SWMU 48, are not attributable to a release from SWMU 48. The concentration of magnesium and sodium detected in the groundwater sample collected from monitoring well MPT-8-MW08S is likely attributable to the proximity of the well to the St. Johns River or is due to the well being hydraulically downgradient from the same source of contaminants detected in monitoring well MPT-8-MW09S samples.

## 8.5 CONCLUSIONS AND RECOMMENDATIONS.

### 8.5.1 Conclusions

Surface and Subsurface Soil. None of the VOCs or SVOCs detected in the surface soil samples exceeded the bench mark values. VOCs, SVOCs, pesticides, and PCBs were not detected in the subsurface soil samples. Only one inorganic analyte, arsenic, exceeded the bench mark values in both the surface and subsurface soil samples. Concentrations of arsenic in the surface soil samples exceeded the USEPA Region III RBC and proposed Superfund SSL and was equal to the FDEP cleanup goal. One of the subsurface soil samples contained arsenic at a concentration that exceeded the background screening value. Concentration of arsenic in the subsurface soil samples also exceeded the USEPA Region III RBC and the proposed Superfund SSL, but not the FDEP cleanup goal for an industrial worker.

Arsenic was detected in surface and subsurface soil samples at concentrations that exceeded bench mark values, which are based on a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with concentrations of arsenic that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR Part 300) (see Tables C-9 and C-10, Appendix C).

Groundwater. VOCs and SVOCs were detected in a monitoring well (MPT-8-MW09S) located hydraulically upgradient from SWMU 48; therefore, these analytes are not attributable to a release from SWMU 48. However, these analytes did exceed bench mark values. Five inorganic analytes (calcium, iron, magnesium, manganese, and sodium) also exceeded background screening values and bench mark values in the groundwater sample collected from monitoring well MPT-8-MW09S. Only samples from one other monitoring well, MPT-8-MW08S, contained concentrations of magnesium and sodium that exceeded the background screening values and benchmark values. The inorganic analytes detected in monitoring well MPT-8-MW09S, which is hydraulically upgradient from SWMU 48, are not attributable to a release from SWMU 48. The concentrations of magnesium and sodium detected in the groundwater sample collected from monitoring well MPT-8-MW08S is likely attributable to the proximity of the well to the St. Johns River or is due to its location hydraulically downgradient from the same source of contaminants detected in monitoring well MPT-8-MW09S samples.

8.5.2 Recommendations SWMU 48 is recommended for no further investigation at this time based on the following rationale.

- None of the VOCs or SVOCs detected in the surface soil samples exceeded the bench mark values.
- Pesticides and PCBs were not detected in the surface soil samples.
- VOCs, SVOCs, pesticides, and PCBs were not detected in the subsurface soil samples.
- Only one inorganic analyte, arsenic, exceeded the bench mark values in both the surface and subsurface soil samples.
- The concentrations of arsenic detected in surface and subsurface soil samples exceeded human health based risk bench mark values, which represent a lifetime excess cancer risk of  $10^{-6}$ . However, the potential risk associated with the concentrations of arsenic that were detected is within a range ( $10^{-4}$  to  $10^{-6}$ ) that is considered by USEPA to be protective of human health (40 CFR 300, 1990).

- VOCs, SVOCs, and inorganics were detected in a sample from monitoring well (MPT-8-MW09S) located hydraulically upgradient from SWMU 48; therefore, these analytes are not attributable to a release from SWMU 48. However, these analytes did exceed bench mark values.
- The concentrations of magnesium and sodium detected in the groundwater sample collected from monitoring well MPT-8-MW08S are likely attributable to the proximity of the well to the St. Johns River or are due to its location hydraulically downgradient from the same source of contaminants detected in monitoring well MPT-8-MW09S samples.
- The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely overstate the specific exposure present at the site (i.e., underestimate the concentration that would result in a lifetime excess cancer risk of  $10^{-6}$ ). Because the chemicals were detected in only one or two media (i.e., soil and or groundwater) all of the exposure pathways and assumptions used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in a lower excess cancer risk than  $10^{-6}$ .



## 9.0 SUMMARY

### 9.1 GROUP I SWMUS.

9.1.1 SWMU 26, Landfill C SWMU 26 is recommended for no further investigation at this time based on analytical results of soil and groundwater samples.

Soil Samples. Pesticides and PCBs were not detected in surface or subsurface soil samples at SWMU 26. VOCs (acetonitrile, chloroform, 2-butanone, toluene, and xylenes) and SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate) were detected in surface and subsurface soil samples at concentrations less than human health risk based benchmark values. Inorganic analytes (arsenic and beryllium) were detected in surface and subsurface soil samples at concentrations within a range of potential risk considered by USEPA to be protective of human health.

Groundwater Samples. VOCs, pesticides, PCBs, or cyanide were not detected in the groundwater samples collected from the SWMU 26 monitoring wells. The SVOCs detected in groundwater samples do not exceed human health based benchmark values. Inorganic analytes (antimony, magnesium, manganese, sodium, and thallium) were detected in groundwater samples at concentrations that exceed human health benchmark values; however, these same analytes, with the exception of thallium, were detected in groundwater samples collected from monitoring wells located hydraulically upgradient from the SWMU. SWMU 26 does not appear to be the source of the detected analytes (antimony, magnesium, manganese, sodium, and thallium). Groundwater in the vicinity of SWMU 26 is being assessed as part of the NAVSTA Mayport RFI for Group I landfill SWMUs 2, 3, 4, and 5.

9.1.2 SWMU 49, Flight Line Retention Ponds An RFI focused toward ecological risk assessment or interim measures to remove sediment in the ponds is recommended for SWMU 49. The focused RFI should include ecological diversity and aquatic and sediment toxicity testing to assess whether to place SWMU 49 on the no further action list, or establish a monitoring program to assess whether continued discharge from the industrial area is adversely affecting the ecology of the two ponds or conduct a corrective measures study. SWMU 49 is a stormwater retention pond that discharges to a Class III marine water body. SWMU 49 has restricted access and is not likely to be used for recreational fishing. However, it is common to see birds foraging at SWMU 49.

The following provides the rationale for this decision based on analytical results of surface water and sediment samples.

Surface Water Samples. VOCs, SVOCs, pesticides, and PCBs were not detected in surface water samples collected from SWMU 49. Eight inorganic analytes were detected at concentrations that exceeded background screening criteria. Concentrations of six inorganic analytes (arsenic, beryllium, lead, mercury, nickel, and zinc) exceeded AWQC for protection of aquatic life (acute). The Class III marine surface water standard was exceeded by concentrations of five inorganic analytes (beryllium, lead, mercury, nickel, and zinc).

Sediment Samples. PCBs have not been detected in sediment samples collected at SWMU 49. VOCs, SVOCs, pesticides, and inorganic analytes have been detected in the sediment samples. Currently, there are no ecological benchmark criteria to assess four of the VOCs (acetone, acetonitrile, 2-butanone, and carbon disulfide), the SVOC butylbenzylphthalate and pesticide heptachlor detected in the sediment samples.

The SVOCs bis(2-ethylhexyl)phthalate, pyrene, fluoranthene, 2-methylnaphthalene and naphthalene were detected at concentrations that exceed ecological bench mark criteria. The pesticides chlordane, 4,4'-DDD, and 4,4'-DDE were detected at concentrations that exceed ecological bench marks. The inorganics arsenic, cadmium, copper, lead, mercury, nickel, silver, and zinc also exceeded ecological bench marks.

Comparison of organic compounds and metals detected in the sediment samples to the background screening and bench mark values suggests that sediment in the SWMU 49 western and eastern ponds may be adversely impacted by discharge of stormwater runoff from the industrial areas served by the stormwater retention ponds. This is based on the detection of multiple organic and inorganic target analytes at concentrations where adverse biological effects are beginning to be observed (i.e., at concentrations greater than the ER-M and PEL).

#### 9.1.3 SWMU 50, East and West Dredge Spoil Disposal Areas

Based on the analytical results, ecological diversity measurements and aquatic and sediment toxicity testing appear to be warranted as part of an RFI focused towards conducting an ecological risk assessment. However, before a commitment is made to the focused ecological risk assessment, the SWMU 50 analytical results should be assessed along with the results of the RFI being conducted for the Landfill SWMUs 2, 3, 4, and 5 which are located beneath and adjacent to SWMU 50. Recommendations pertaining to the need for a focused ecological risk assessment at SWMU 50 will be made in the RFI report for the Group I SWMUs

The Navy plans to remove some of the dredge material to provide capacity for future maintenance dredging of Mayport Turning Basin. Existing data and data obtained from a focused ecological risk assessment, if required, and corrective measures study, if required, could provide an adequate basis to evaluate use, if any, of the dredge material such as for asphalt or concrete mix for roads.

The possible need for a focused ecological risk assessment is based on the following rationale.

Because bench mark values have not been established by Long and others (1993) and MacDonald (1994) for benzo(k)fluoranthene, butylbenzylphthalate, di-n-octylphthalate, antimony, beryllium, selenium, and cyanide, they were considered CPCs.

Target analytes that exceeded the TEL were benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene. Target analytes that exceeded the ER-L and TEL were fluoranthene, cadmium, and lead. None of the target analytes exceeded values for the ER-M or PEL.

Concentrations of benzo(a)pyrene and antimony exceed FDEP residential soil cleanup goals and concentrations of beryllium exceeded residential and industrial worker soil cleanup goals.

9.1.4 SWMU 56, Building 1552 Accumulation Area SWMU 56 is recommended for no further investigation at this time based on analytical results of soil and groundwater samples.

Soil Samples. PCBs were not detected in surface or subsurface soil samples. Eight VOCs (acetone, acetonitrile, carbon disulfide, trichlorofluoromethane, chloroform, 2-butanone, 4-methyl-2-butanone, and toluene), two SVOCs (di-n-butylphthalate and bis(2-ethylhexyl)phthalate), and one pesticide (4,4'-DDE) were detected in surface soil samples at concentrations less than human health benchmark values. One VOC (acetone) and one pesticide (4,4'-DDE) were detected in subsurface soil samples at concentrations less than human health benchmark values.

Inorganic analytes (arsenic, beryllium, cadmium, and chromium) were detected in surface soil samples at concentrations within a range of potential risk considered by USEPA to be protective of human health. Inorganic analytes (arsenic, barium, lead, vanadium, and zinc) detected in subsurface soil samples did not exceed the human health benchmark values.

Groundwater Samples. The VOC (acetone) detected in the groundwater sample from SWMU 56 did not exceed human health benchmark values. Acetone is a contaminant that may be related to decontamination of the sampling equipment or the analytical laboratory. Magnesium and sodium were detected at concentrations that exceeded their respective background screening values; however, the concentrations were less than their USEPA Region III RBCs. The concentration of sodium exceeded the FDEP guidance concentration.

## 9.2 GROUP II SWMUS.

9.2.1 SWMU 19, Naval Aviation Depot (NADEP) Blasting Area SWMU 19 is recommended for no further investigation at this time. The following provides the rationale for this decision based on analytical results of soil and sediment samples and a sample of the Black Beauty™ sand blasting media.

Soil Samples. PCBs were not detected in either the surface or subsurface soil samples. VOCs were not detected in the surface soil samples and SVOCs were not detected in the subsurface soil samples.

Target analytes detected in the surface soil samples consist of 2 SVOCs, 2 pesticides, and 11 inorganic analytes. Target analytes detected in the subsurface soil samples consist of 1 VOC, 3 pesticides, and 10 inorganic analytes.

None of the VOCs, SVOCs, or pesticides detected in the surface or subsurface soil samples exceeded the human health benchmark values. Inorganic analytes (arsenic and beryllium) were detected in surface and subsurface soil samples at concentrations within a range of potential risk considered by USEPA to be protective of human health. None of the inorganic analytes detected in the subsurface soil samples exceeded the benchmark values.

Sediment Samples. VOCs, SVOCs, pesticides, and PCBs were not detected in the sediment samples. None of the eight inorganic analytes detected in the two sediment samples exceeded background screening values.

Black Beauty™ Samples. The result of the TCLP analysis indicate that the Black Beauty™ sand blasting media does not meet the definition of an RCRA-characteristic hazardous waste.

9.2.2 SWMU 28, Defense Reutilization and Marketing Office Yard SWMU 28 is recommended for no further investigation at this time. The following provides the rationale for this decision based on analytical results of soil and groundwater samples.

Soil Samples. Pesticides and PCBs were not detected in surface or subsurface soil samples. The three VOCs (acetone, methylene chloride, and xylenes) detected in the surface soil samples did not exceed human health based screening values.

The SVOC 4-chloro-3-methylphenol was determined to be a chemical of potential concern in surface soil samples, because human health benchmark criteria are not currently available. None of the other PAH compounds detected in the surface soil samples exceeded human health benchmark values.

Six SVOCs (benzo(a)anthracene, benzo(b)perylene, benzo(g,h,i)perylene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene) were determined to be chemicals of potential concern in subsurface soil samples. However, none of the PAH compounds were detected in the surface or subsurface soil samples at concentrations that exceed the FDEP cleanup goals.

Inorganic analytes (arsenic and beryllium) were detected in surface and subsurface soil samples at concentrations within a range of potential risk considered by USEPA to be protective of human health.

Groundwater Samples. Only one inorganic target analyte, thallium, was determined to be a chemical of potential concern. Thallium was detected as a single occurrence and exceeded the USEPA Region III RBC, but not the FDEP Guidance Concentration. Thallium was not detected in the surface and subsurface soil samples, therefore, SWMU 28 is not likely the source of thallium in the groundwater sample.

9.2.3 SWMU 48 Former Chemistry Laboratory Accumulation Area SWMU 48 is recommended for no further investigation at this time. The following provides the rationale for this decision based on analytical results of soil and groundwater samples.

Soils. Pesticides and PCBs were not detected in surface soil samples. None of the VOCs or SVOCs detected in the surface soil samples exceeded human health benchmark values. VOCs, SVOCs, pesticides, and PCBs were not detected in subsurface soil samples. One inorganic analyte (arsenic) was detected in surface and subsurface soil samples at concentrations within a range of potential risk considered by USEPA to be protective of human health.

Groundwater. VOCs and SVOCs were detected in a sample from a monitoring well (MPT-8-MW09S) located hydraulically upgradient from SWMU 48. These analytes are not attributable to a release from SWMU 48.

Five of the inorganic analytes (calcium, iron, magnesium, manganese, and sodium) exceeded background screening values and benchmark values in the groundwater sample collected from monitoring well MPT-8-MW09S. Only samples from one other monitoring well, MPT-8-MW08S, contained concentrations of magnesium and sodium

that exceeded the background screening values and benchmark values. The concentrations of magnesium and sodium detected in the groundwater sample collected from monitoring well MPT-8-MW08S is likely attributable to the proximity of the site to the St. Johns River or its location hydraulically downgradient from the same source of contaminants detected in monitoring well MPT-8-MW09S samples.

## REFERENCES

- ABB Environmental Services, Inc., 1991, RFI Workplan, Volumes I, II, and III (Interim Final): prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina, October.
- ABB-ES, 1992a, RCRA Facility Investigation Phase 1, U.S. Naval Station, Mayport, Florida, (draft); prepared for SOUTHNAVFACENGCOM, November.
- ABB-ES, 1992b, Phase 1 RCRA Facility Assessment Sampling Visit Workplan, U.S. Naval Station, Mayport, Florida, prepared for SOUTHNAVFACENGCOM, (draft), February.
- ABB-ES, 1992c, Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report, Phase 1, U.S. Naval Station Mayport, Florida, (Final Draft) prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina, November.
- ABB-ES, 1993a, Phase 1 RCRA Facility Assessment/Sampling Visit Workplan, Group I SWMUs 26, 49, 50 and 56, Addendum 1, U.S. Naval Station Mayport, Florida prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina, November.
- ABB-ES, 1993b, RCRA Facility Assessment/Sampling Visit Workplan, Group II SWMUs 19, 28 and 48, U.S. Naval Station Mayport, Florida prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina, November.
- ABB-ES, 1995a, Corrective Action Management Plan, U.S. Naval Station Mayport, Florida, prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina, March.
- ABB-ES, 1995b, Resource Conservation and Recovery Act (RCRA) Corrective Action Program General Information Report, U.S. Naval Station Mayport (Volumes I and II), prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina, February.
- Durfor, C.N, and Becker, E., 1964, Public water supplies of the 100 largest cities in the United States, 1962, U.S. Geological Survey Water Supply Paper, 1812, 364 p.
- Environmental Science and Engineering, Inc. (ESE), 1986, Initial Assessment Study, Naval Station Mayport, Florida: prepared for Naval Energy and Environmental Support Activity, U.S. Navy, May.
- Enviropact, Inc., 1989, Report of Analysis, Extraction Procedure (EP) Toxicity Test: July.
- Florida Department of Environmental Regulation (FDER), 1981, Photographs (6) of Mercury Waste Storage Area: FDER files, April 29.

## REFERENCES (Continued)

- FDEP, 1994, Groundwater Guidance Concentrations, Bureau of Drinking Water and Groundwater Resources, Florida Department of Environmental Protection (FDEP), Tallahassee, Florida, June.
- FDEP, 1995, Memorandum from Ligia Mora-Applegate to Tim Bahr, Subject: Cleanup Goals for the Military Sites in Florida; Technical Review Section, Bureau of Waste Cleanup, FDEP, Tallahassee, Florida, September.
- Freeze, Allen R, and Cherry, John, A., 1979, Groundwater, Prentice Hall Inc., Englewood Cliffs, New Jersey, 604 p.
- Gilbert, R.O., 1987, Statistical Methods are Environmental Pollution Monitoring, Van Nostrand Reinhold Company, New York.
- E.C. Jordan, Inc, 1988, NIRP Expanded Site Investigation Naval Station Mayport, Florida, (Final Report), prepared for the U.S. Department of the Navy, SOUTHNAVFACENGCOM, Charleston, S.C., April.
- A.T. Kearney, Inc., 1989, RCRA Facility Assessment of the Naval Station Mayport, Jacksonville, Florida (Draft): prepared for USEPA, September.
- Long, Edward R., MacDonald, Donald D., Smith, Sherri L., and Calder, Fred D., 1993, Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments, National Oceanic and Atmospheric Administration, October.
- MacDonald, D. D., 1994, Approach to the Assessment of Sediment Quality in Florida Coastal Water, prepared for FDEP, Tallahassee, Florida, by MacDonald Environmental Sciences, Ltd., November.
- Naval Energy and Environmental Support Activity (NEESA), 1988, Sampling and chemical analysis quality assurance requirements for the Navy Installation Restoration Program: NEESA 20.2-047B, June.
- U.S. Environmental Protection Agency (USEPA), 1986, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods: SW-846.
- USEPA, 1988a, HSWA Permit No. FL9-170-024-260: Region IV, March 25, 1988, revised and reissued June 15, 1993.
- USEPA, 1988b, Guidance Document for Assessment of RCRA Environmental Data Quality, draft: June.
- USEPA, 1988c, Laboratory data validation functional guidelines for evaluating inorganic analyses: July.
- USEPA, 1989a, Interim final RCRA facility investigation guidance, four volumes: May 1989, Waste Management Division, Office of Solid Waste, EPA 530/SW-89-031.

### REFERENCES (Continued)

- USEPA, 1989b, Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual (Part A), Interim Final: Office of Emergency and Remedial Response, EPA/540/1-89/002.
- USEPA, 1990, National functional guidelines for organic data review: December 1990 (revised June 1991).
- USEPA, 1991a, Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual, USEPA Region IV, Environmental Services Branch, Athens, Georgia, February.
- USEPA, 1991b, Water Quality Criteria Summary, Office of Science and Technology, Health and Ecological Criteria Division, Washington, D.C., May.
- USEPA, 1991c, Letter from Elmer W. Aiken, Health Assessment Officer, to Hazardous Waste Contractors; Subject: Risk Assessment Guidance; USEPA Region IV, risk Assessment Guidance, March.
- USEPA, 1992, Guidance for Data Useability in Risk Assessments (Part A), Office of Emergency and Remedial Response, Washington, D.C. 9285.7-09A, April.
- USEPA, 1993, Supplemental Region IV Risk Assessment Guidance: USEPA Region IV Atlanta, Georgia, October.
- USEPA, 1994, Soil Screening Guidance, Office of Solid Waste and Emergency Response, Hazardous Site Control Division, USEPA, EPA/540/R-94/101, December.
- USEPA, 1995, Memorandum from Roy L. Smith to RBC Table Mailing List, Subject: Risk-Based Concentration Table, First Quarter 1995; USEPA Region III, Philadelphia, Pennsylvania, February.



**APPENDIX A**  
**TARGET ANALYTE LIST**

## APPENDIX A: ANALYTICAL PROGRAM

The analytical program for the RCRA Corrective Action Program at NAVSTA Mayport addresses analytes selected from both the 40 CFR 264, Appendix IX, groundwater monitoring list and the USEPA Contract Laboratory Program target compound list and target analyte list (Tables A-1 through A-4). Tables A-1 through A-4 provide a summary of target analytes in both lists, current target analytes, and target analytes that have been detected in previous investigations at NAVSTA Mayport. Gas chromatography and mass spectroscopy (GC/MS) methods are used for analyses of environmental and QA/QC samples. Specifically, USEPA Method 8240 is used to analyze for VOCs (Table A-1) and USEPA Method 8270 is used to analyze for SVOCs (Table A-2). USEPA Method 8080 is used to analyze for chlorinated pesticides and PCBs (Table A-3). Organophosphorus pesticides (USEPA 8140) and chlorinated herbicides (USEPA Method 8150) are target analytes only at sites known to be used for pesticide storage, handling, and mixing. Selected metals are analyzed by inductively coupled plasma (ICP), graphite furnace atomic absorption (GFAA), or cold vapor atomic absorption (CVAA), as appropriate (e.g., USEPA Methods 6010, 7420, or 7470) (Table A-4). USEPA Method 9010 is used to analyze for cyanide.

The analytical data packaging for reporting VOCs, SVOCs, pesticides, PCBs, and inorganics is NEESA Level C.

The number of field and laboratory QA/QC samples collected is in accordance with the generic Quality Assurance Program Plan (QAPP), Appendix A, Volume II, of the NAVSTA Mayport RFI Workplan (ABB-ES, 1991). Field and laboratory QA/QC samples are analyzed by the same analytical methods as the associated environmental samples. The following presents a brief description of field QA/QC samples.

- Duplicates. Duplicates of soil, waste, groundwater, surface water, and sediment samples are submitted for analyses at a rate of 10 percent of the samples analyzed, or a minimum of 1 per event for each media sampled.
- Trip Blanks. A trip blank is included with each shipment of samples scheduled for VOC analysis and analyzed with other VOC samples.
- Equipment Rinsate Blanks. A minimum of one equipment rinsate (sampler) blank per week per media is collected from each piece of equipment used in the sampling event (bailers, sampling pumps, and/or tubing). If equipment is decontaminated in the field, then a minimum of two equipment rinsate blanks are collected each day. One is collected at the initiation of daily sampling activities and the other at the completion.
- Field Blanks. A field blank or source water blank is collected at a rate of at least one blank per field event or every 10 days, whichever is greater. The source blank monitors water used by the field operations for daily operations.

**Table A-1**  
**Gas Chromatograph and Mass Spectrometer Volatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Volatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
Chloromethane		✓	✓	
Bromomethane		✓	✓	
Vinyl chloride	✓	✓	✓	
Chloroethane	✓	✓	✓	
Methylene chloride	✓	✓	✓	✓
Acetone	✓	✓	✓	✓
Carbon disulfide	✓	✓	✓	✓
Trichlorofluoromethane	✓		✓	✓
1,1-Dichloroethene	✓	✓	✓	
1,1-Dichloroethane	✓	✓	✓	✓
1,2-Dichloroethene (total)	✓	✓	✓	
Chloroform	✓	✓	✓	✓
1,2-Dichloroethane	✓	✓	✓	
2-Butanone	✓	✓	✓	✓
1,1,1-Trichloroethane	✓	✓	✓	
Carbon tetrachloride	✓	✓	✓	
Bromodichloromethane	✓	✓	✓	✓
1,2-Dichloropropane	✓	✓	✓	
cis-1,3-Dichloropropene	✓	✓	✓	
Trichloroethene	✓	✓	✓	✓
Benzene	✓	✓	✓	✓
Dibromochloromethane	✓	✓	✓	✓
1,1,2-Trichloroethane	✓	✓	✓	
trans-1,3-Dichloropropene	✓	✓	✓	
2-Chloroethylvinylether			✓	
Bromoform	✓	✓	✓	
2-Hexanone	✓	✓	✓	
Tetrachloroethene	✓	✓	✓	
1,1,2,2-Tetrachloroethane	✓	✓	✓	✓
Toluene	✓	✓	✓	✓
Chlorobenzene	✓	✓	✓	✓
Ethylbenzene	✓	✓	✓	✓
See notes at end of table.				

**Table A-1 (Continued)**  
**Gas Chromatograph and Mass Spectrometer Volatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Volatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
Styrene	✓	✓	✓	
Xylenes (total)				
4-Methyl-2-pentanone	✓	✓	✓	
1,3-Dichlorobenzene	✓		✓	
1,4-Dichlorobenzene	✓		✓	✓
1,2-Dichlorobenzene	✓		✓	
Acetonitrile	✓		✓	✓
Acrolein	✓		✓	✓
Acrylonitrile	✓		✓	
Chloroprene	✓		✓	
3-Chloropropene	✓		✓	
1,2-Dibromo-3-chloropropane	✓		✓	✓
1,2-Dibromoethane	✓		✓	
Dibromomethane	✓		✓	
1,4-Dioxane	✓		✓	
Propionitrile	✓		✓	
Ethyl Methacrylate	✓		✓	
Iodomethane	✓		✓	
Isobutyl alcohol	✓		✓	
Methacrylonitrile	✓		✓	
Methyl methacrylate	✓		✓	
Vinyl acetate	✓		✓	
Trans-1,4-dichloro-2-butene	✓		✓	
Dichlorodifluoromethane	✓		✓	
Pentachloroethane	✓		✓	
1,1,1,2-Tetrachloroethane	✓		✓	
1,2,3-Trichloropropane	✓		✓	

Notes: ✓ = Target analytes for environmental and quality control samples collected at each Solid Waste Management Unit.

Appendix IX = 40 Code of Federal Regulations Part 264, Appendix IX, Ground Water Monitoring List. Analytical Methodology for Appendix IX is Test Methods for Evaluation of Solid Wastes, US EPA, SW 846, Third Edition, November, 1986. (And Proposed Update Package, 1989.)

CLP TCL = U.S. Environmental Protection Agency Contract Laboratory Program, Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration, Exhibit C, Target Compound List and Contract Required Quantitation Limits, OLM01.0, July 1993.

**Table A-2**  
**Gas Chromatograph and Mass Spectrometer Semivolatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection**  
**Agency Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Semivolatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
<b>Acid Extractables</b>				
Phenol	✓	✓	✓	✓
2-Chlorophenol	✓	✓	✓	
2-Methylphenol	✓	✓	✓	✓
4-Methylphenol	✓	✓	✓	✓
2-Nitrophenol	✓	✓	✓	
2,4-Dimethylphenol	✓	✓	✓	✓
2,4-Dichlorophenol	✓	✓	✓	
4-Chloro-3-methylphenol	✓	✓	✓	
2,4,6-Trichlorophenol	✓	✓	✓	
2,4,5-Trichlorophenol	✓	✓	✓	
2,4-Dinitrophenol	✓	✓	✓	
4-Nitrophenol	✓	✓	✓	
2-Methyl-4,6-dinitrophenol	✓	✓	✓	
Pentachlorophenol	✓	✓	✓	✓
2,3,4,6-Tetrachlorophenol	✓		✓	
2,6-Dichlorophenol	✓		✓	
Benzoic Acid			✓	✓
<b>Base-Neutral Compounds</b>				
1,3-Dichlorobenzene <sup>1</sup>	✓	✓	✓	
1,4-Dichlorobenzene <sup>1</sup>	✓	✓	✓	
1,2-Dichlorobenzene <sup>1</sup>	✓	✓	✓	
Hexachloroethane	✓	✓	✓	
1,2,4-Trichlorobenzene	✓	✓	✓	
Naphthalene <sup>2</sup>	✓	✓	✓	✓
Hexachlorobutadiene	✓	✓	✓	
Hexachlorocyclopentadiene	✓	✓	✓	
See notes at end of table.				

**Table A-2 (Continued)**  
**Gas Chromatograph and Mass Spectrometer Semivolatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Semivolatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
2-Chloronaphthalene	✓	✓	✓	
Acenaphthylene <sup>2</sup>	✓	✓	✓	
Acenaphthene <sup>2</sup>	✓	✓	✓	✓
Dibenzofuran	✓	✓	✓	✓
Fluorene <sup>2</sup>	✓	✓	✓	✓
4-Chlorophenyl-phenylether	✓	✓	✓	
4-Bromophenyl-phenylether				
Hexachlorobenzene	✓	✓	✓	
Phenanthrene <sup>2</sup>	✓	✓	✓	✓
Anthracene <sup>2</sup>	✓	✓	✓	✓
Fluoranthene <sup>2</sup>	✓	✓	✓	✓
Pyrene <sup>2</sup>	✓	✓	✓	✓
Benzo(a)anthracene <sup>2</sup>	✓	✓	✓	✓
Chrysene <sup>2</sup>	✓	✓	✓	✓
Benzo(b)fluoranthene <sup>2</sup>	✓	✓	✓	✓
Benzo(k)fluoranthene <sup>2</sup>	✓	✓	✓	
Benzo(a)pyrene <sup>2</sup>	✓	✓	✓	✓
Indeno(1,2,3-cd)pyrene <sup>2</sup>	✓	✓	✓	
Dibenzo(a,h)anthracene <sup>2</sup>	✓	✓	✓	
Benzo(g,h,i)perylene <sup>2</sup>	✓	✓	✓	✓
bis(2-Chloroethyl)ether	✓		✓	
n-Nitroso-di-n-propylamine	✓	✓	✓	
Nitrobenzene	✓	✓	✓	
Isophorone	✓	✓	✓	
bis(2-Chloroethoxy)methane	✓	✓	✓	
Dimethylphthalate	✓	✓	✓	
2,6-Dinitrotoluene	✓	✓	✓	
2,4-Dinitrotoluene	✓	✓	✓	
Diethylphthalate	✓	✓	✓	✓
n-Nitrosodiphenylamine	✓	✓	✓	
di-n-Butylphthalate	✓	✓	✓	✓
Butylbenzylphthalate	✓	✓	✓	✓
3,3'-Dichlorobenzidine	✓	✓	✓	
bis(2-Ethylhexyl)phthalate	✓	✓	✓	✓
di-n-Octylphthalate	✓	✓	✓	✓
n-Nitrosodimethylamine	✓		✓	✓

**Table A-2 (Continued)**  
**Gas Chromatograph and Mass Spectrometer Semivolatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Semivolatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
2-Picoline	✓		✓	
Diphenylamine	✓		✓	
4-Nitroaniline	✓	✓	✓	
Benzyl alcohol	✓		✓	
n-Nitrosopiperidine	✓		✓	
n-Nitrosomethylethylamine	✓		✓	
4-Chloroaniline	✓	✓	✓	
p-Phenylenediamine	✓		✓	
3- and 4-Methylphenol				
bis(2-Chloroisopropyl)ether	✓	✓	✓	
Pyridine	✓		✓	
3,3'-Dimethylbenzidine	✓		✓	
Isosafrole	✓		✓	
Phenyl-tert-butylamine	✓		✓	
1,2-Diphenylhydrazine			✓	
1,4-Naphthoquinone	✓		✓	
1-Naphthylamine	✓		✓	
Aramite	✓		✓	
Hexachloropropene	✓		✓	
Pronamide	✓		✓	
2-Acetylaminofluorene	✓		✓	✓
n-Nitrosodiethylamine	✓		✓	
3-Methylcholanthrene	✓		✓	
4-Nitroquinoline-1-oxide	✓		✓	
7,12-Dimethylbenz(a)anthracene	✓		✓	
n-Nitrosomorpholine	✓		✓	
p-(Dimethylamino)azobenzene	✓		✓	
Pentachlorobenzene	✓		✓	
Phenacetin	✓		✓	
Ethyl methanesulfonate	✓		✓	
Aniline	✓		✓	
Methyl methanesulfonate	✓		✓	
See notes at end of table.				

**Table A-2 (Continued)**  
**Gas Chromatograph and Mass Spectrometer Semivolatiles**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act**  
**Appendix IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Semivolatile Organic Compounds	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
Hexachlorophene	✓		✓	
Pentachloronitrobenzene	✓		✓	
2-Nitroaniline	✓	✓	✓	
2-Methylnaphthalene <sup>2</sup>	✓	✓	✓	✓
2-Naphthylamine	✓		✓	
Methapyrilene	✓		✓	
4-Aminobiphenyl	✓		✓	
Benzidine			✓	
n-Nitroso-di-n-butylamine	✓		✓	
n-Nitrosopyrrolidine	✓		✓	
Safrole	✓		✓	
o-Toluidine	✓		✓	
1,2,4,5-Tetrachlorobenzene	✓		✓	
Acetophenone	✓		✓	
3-Nitroaniline	✓	✓	✓	
1,3,5-Trinitrobenzene	✓		✓	
5-Nitro-o-toluidine	✓		✓	
1,3-Dinitrobenzene	✓		✓	
Carbazole		✓		

<sup>1</sup> Analyte is both a volatile and semivolatile target analyte.

<sup>2</sup> Analyte is a polynuclear aromatic hydrocarbon.

Notes: ✓ = Target analytes for environmental and quality control samples collected at each Solid Waste Management Unit.

Appendix IX = 40 Code of Federal Regulations Part 264, Appendix IX, Ground Water Monitoring List. Analytical Methodology for Appendix IX is Test Methods for Evaluation of Solid Wastes, US EPA, SW 846, Third Edition, November, 1986. (And Proposed Update Package, 1989.)

CLP TCL = U.S. Environmental Protection Agency Contract Laboratory Program, Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration, Exhibit C, Target Compound List and Contract Required Quantitation Limits, OLM01.0. July 1993.



**Table A-3**  
**Gas Chromatograph Pesticides, Herbicides and Polychlorinated Biphenyls**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act Appendix**  
**IX Groundwater Monitoring List and U.S. Environmental Protection Agency**  
**Contract Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Pesticides, Herbicides and Polychlorinated Biphenyls	Appendix IX	CLP TCL	Currently A Target Analyte	Detected at NAVSTA Mayport
<b>Organochlorine Pesticides</b>				
alpha-Benzene hexachloride (BHC)	✓	✓	✓	✓
beta-BHC	✓	✓	✓	✓
delta-BHC	✓	✓	✓	✓
gamma-BHC (Lindane)	✓	✓	✓	
Heptachlor	✓	✓	✓	✓
Aldrin	✓	✓	✓	
Heptachlor epoxide	✓	✓	✓	✓
Endosulfan I	✓	✓	✓	
Dieldrin	✓	✓	✓	
4,4'-Dichlorodiphenyldichloroethylene (4,4'-DDE)	✓	✓	✓	✓
Endrin	✓	✓	✓	
Endosulfan II	✓	✓	✓	
4,4'-Dichlorodipenyldichloroethane (4,4'-DDD)	✓	✓	✓	✓
Endosulfan sulfate	✓	✓	✓	
4,4'-Dichlorodiphenyltrichloroethane (4,4'-DDT)	✓	✓	✓	✓
Methoxychlor	✓	✓	✓	
Endrin keytone		✓	✓	
Endrin aldehyde	✓	✓	✓	
alpha-Chlordane	✓	✓	✓	✓
gamma-Chlordane	✓	✓	✓	✓
Toxaphene	✓	✓	✓	
<b>Organophosphorus Pesticides</b>				
Aspon-SS	✓		*	
Triethylphosphorothioate	✓		*	
Thionazin	✓		*	
Parathion methyl	✓		*	
Phorate	✓		*	
Disulfoton	✓		*	
Sulfotepp	✓		*	
Famphur	✓		*	
Parathion ethyl	✓		*	
Dimethoate				
See notes at end of table.				

**Table A-3 (Continued)**  
**Gas Chromatograph Pesticides, Herbicides and Polychlorinated Biphenyls**  
**Comparison of Target Analytes From Resource Conservation and Recovery Act Appendix**  
**IX Groundwater Monitoring List and U.S. Environmental Protection Agency Contract**  
**Laboratory Program Target Compound List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Pesticides, Herbicides and Polychlorinated Biphenyls	Appendix IX		Currently A Target Analyte	Detected at NAVSTA Mayport
<b>Chlorinated Herbicides</b>				
2,4-Dichlorophenylacetic acid			*	
3,5-Dichlorobenzoic acid			*	
Dinoseb	✓		*	
(2,4,5-Trichlorophenoxy)-acetic acid (2,4,5-T)	✓		*	
$\alpha$ -(2,4,5-Trichlorophenoxy) propionic acid (2,4,5-TP) (Silvex)	✓		*	
2,4-Dichlorophenoxyacid (2,4-D)			*	
<b>Polychlorinated Biphenyls (PCBs)</b>				
Aroclor-1016	✓	✓	✓	
Aroclor-1221	✓	✓	✓	
Aroclor-1232	✓	✓	✓	
Aroclor-1242	✓	✓	✓	
Aroclor-1248	✓	✓	✓	✓
Aroclor-1254	✓	✓	✓	
Aroclor-1260	✓	✓	✓	✓
<p>Notes: ✓ = Target analytes for environmental and quality control samples collected at each Solid Waste Management Unit.</p> <p>* = Target analytes for environmental and quality control samples collected at pesticide handling and storage sites.</p> <p>Appendix IX = 40 Code of Federal Regulations Part 264, Appendix IX, Ground Water Monitoring List. Analytical Methodology for Appendix IX is <u>Test Methods for Evaluation of Solid Wastes</u>, US EPA, SW 846, Third Edition, November, 1986. (And Proposed Update Package, 1989.)</p> <p>CLP TCL = U.S. Environmental Protection Agency Contract Laboratory Program, <u>Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration</u>, Exhibit C, Target Compound List and Contract Required Quantitation Limits, OLM01.0, July 1993.</p>				

**Table A-4**  
**Inorganics and Cyanide**  
**Comparison of Target Analytes From Resource Conservation and**  
**Recovery Act Appendix IX Groundwater Monitoring List and U.S.**  
**Environmental Protection Agency**  
**Contract Laboratory Program Target Analyte List**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Inorganics and Cyanide	Appendix IX	CLP TAL	Currently A Target Analyte	Detected at NAVSTA Mayport
Aluminum		✓		
Antimony	✓	✓	✓	✓
Arsenic	✓	✓	✓	✓
Barium	✓	✓	✓	✓
Beryllium	✓	✓	✓	✓
Cadmium	✓	✓	✓	✓
Calcium		✓	✓	✓
Chromium	✓	✓	✓	✓
Cobalt	✓	✓	✓	✓
Copper	✓	✓	✓	✓
Iron		✓	✓	✓
Lead	✓	✓	✓	✓
Magnesium		✓	✓	✓
Manganese		✓	✓	✓
Mercury	✓	✓	✓	✓
Nickel	✓	✓	✓	✓
Potassium		✓	✓	✓
Selenium	✓	✓	✓	✓
Silver	✓	✓	✓	✓
Sodium		✓	✓	✓
Thallium	✓	✓	✓	✓
Tin	✓		✓	✓
Vanadium	✓	✓	✓	✓
Zinc	✓	✓	✓	✓
Cyanide	✓	✓	✓	✓

Notes: ✓ = Target analytes for environmental and quality control samples collected at each Solid Waste Management Unit.

Appendix IX = 40 Code of Federal Regulations Part 264, Appendix IX, Ground Water Monitoring List. Analytical Methodology for Appendix IX is Test Methods for Evaluation of Solid Wastes, US EPA, SW 846, Third Edition, November, 1986. (And Proposed Update Package, 1989.)

CLP TAL = U.S. Environmental Protection Agency Contract Laboratory Program, Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration, Target Analyte List and Contract Required Quantitation Limits, ILM0 1.0, March 1990.

**APPENDIX B**  
**DATA SUMMARY TABLES**

NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

PESTICIDES/PCBs (SW-846, 8080)

ug/kg

alpha-BHC	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
beta-BHC	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
delta-BHC	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
gamma-BHC (lindane)	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Heptachlor	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Aldrin	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Heptachlor epoxide	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Endosulfan I	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Dieldrin	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
4,4-DDE	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Endrin	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
Endosulfan II	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
4,4-DDD	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
Endosulfan sulfate	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
4,4-DDT	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
Methoxychlor	3.5 UJ	ug/kg		3.7 U	ug/kg		7 U	ug/kg		7 U	ug/kg		6.8 U	ug/kg	
Endrin aldehyde	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
Endrin ketone	1.7 UJ	ug/kg		1.8 U	ug/kg		3.4 U	ug/kg		3.4 U	ug/kg		3.3 U	ug/kg	
Chlordane	8.6 UJ	ug/kg		9.1 U	ug/kg		17 U	ug/kg		17 U	ug/kg		17 U	ug/kg	
Chlorobenzilate	26 UJ	ug/kg		27 U	ug/kg		52 U	ug/kg		52 U	ug/kg		51 U	ug/kg	
Diallate	51 UJ	ug/kg		54 U	ug/kg		100 U	ug/kg		100 U	ug/kg		100 U	ug/kg	
Toxaphene	42 UJ	ug/kg		45 U	ug/kg		86 U	ug/kg		86 U	ug/kg		83 U	ug/kg	
Isodrin	.86 UJ	ug/kg		.91 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg		1.7 U	ug/kg	
Kepon	51 UJ	ug/kg		54 U	ug/kg		100 UJ	ug/kg		100 UJ	ug/kg		100 UJ	ug/kg	
Aroclor-1016	42 UJ	ug/kg		45 U	ug/kg		86 U	ug/kg		86 U	ug/kg		83 U	ug/kg	
Aroclor-1221	86 UJ	ug/kg		91 U	ug/kg		170 U	ug/kg		170 U	ug/kg		170 U	ug/kg	
Aroclor-1232	86 UJ	ug/kg		91 U	ug/kg		170 U	ug/kg		170 U	ug/kg		170 U	ug/kg	
Aroclor-1242	42 UJ	ug/kg		45 U	ug/kg		86 U	ug/kg		86 U	ug/kg		83 U	ug/kg	
Aroclor-1248	42 UJ	ug/kg		45 U	ug/kg		86 U	ug/kg		86 U	ug/kg		83 U	ug/kg	
Aroclor-1254	21 UJ	ug/kg		22 U	ug/kg		42 U	ug/kg		42 U	ug/kg		40 U	ug/kg	
Aroclor-1260	21 UJ	ug/kg		22 U	ug/kg		42 U	ug/kg		42 U	ug/kg		40 U	ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7645009	RFADATA	49SD011	02-AUG-94	QUAL UNITS	VALUE
----------	---------	---------	-----------	------------	-------

VALUE	M7645008
	RFADATA
	49SD012
	02-AUG-94
	QUAL UNITS

R8730004	RFADATA	49SD013	12-SEP-94	QUAL UNITS	VALUE
----------	---------	---------	-----------	------------	-------

RB730006	DL
RFADATA	
49SD014	
12-SEP-94	
QUAL UNITS	
VALUE	

PESTICIDES/PCBA (SW-846, 8080)

**ug/kg**[illegible]

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

PESTICIDES/PCBs (SV-846,8080)

alpha-BHC	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
beta-BHC	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
delta-BHC	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
gamma-BHC (lindane)	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Heptachlor	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Aldrin	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Heptachlor epoxide	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Endosulfan I	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
4,4-DDE	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Dieldrin	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
4,4-DDT	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Endrin	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
Endosulfan II	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
4,4-DDD	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
Endosulfan sulfate	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
4,4-DDT	6.3 U	ug/kg	6.3	8.1 U	ug/kg	8.1	11 U	ug/kg	11	8.7 U	ug/kg	8.7
Methoxychlor	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
Endrin aldehyde	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
Endrin ketone	3.1 U	ug/kg	3.1	3.9 U	ug/kg	3.9	5.2 U	ug/kg	5.2	4.2 U	ug/kg	4.2
Chlordane	16 U	ug/kg	16	20 U	ug/kg	20	27 U	ug/kg	27	22 U	ug/kg	22
Chlorobenzilate	47 U	ug/kg	47	60 U	ug/kg	60	80 U	ug/kg	80	64 U	ug/kg	64
Diallate	94 U	ug/kg	94	120 U	ug/kg	120	160 U	ug/kg	160	130 U	ug/kg	130
Toxaphene	78 U	ug/kg	78	99 U	ug/kg	99	130 U	ug/kg	130	110 U	ug/kg	110
Endrin	1.6 U	ug/kg	1.6	2 U	ug/kg	2	2.7 U	ug/kg	2.7	2.2 U	ug/kg	2.2
Kepon	93 UJ	ug/kg	120 UJ	ug/kg	120 UJ	ug/kg	160 U	ug/kg	160	130 U	ug/kg	130
Aroclor-1016	-	ug/kg	-	ug/kg	-	ug/kg	130 U	ug/kg	130	110 U	ug/kg	110
Aroclor-1221	-	ug/kg	-	ug/kg	-	ug/kg	270 U	ug/kg	270	220 U	ug/kg	220
Aroclor-1232	-	ug/kg	-	ug/kg	-	ug/kg	130 U	ug/kg	130	110 U	ug/kg	110
Aroclor-1242	-	ug/kg	-	ug/kg	-	ug/kg	130 U	ug/kg	130	110 U	ug/kg	110
Aroclor-1248	-	ug/kg	-	ug/kg	-	ug/kg	68 U	ug/kg	68	55 U	ug/kg	55
Aroclor-1254	-	ug/kg	-	ug/kg	-	ug/kg	68 U	ug/kg	68	55 U	ug/kg	55
Aroclor-1260	-	ug/kg	-	ug/kg	-	ug/kg	68 U	ug/kg	68	55 U	ug/kg	55

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAINT REPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8730003RE RFA DATA 49SD016RE 12-SEP-94  
R8730001 RFA DATA 49SD017 12-SEP-94  
R8730002 RFA DATA 49SD017D 12-SEP-94

NAME	VALUE	QUAL	UNITS	DL	NAME	VALUE	QUAL	UNITS	DL	NAME	VALUE	QUAL	UNITS	DL
o-Toluidine	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
Hexachloropropene	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
p-Phenyltetrachloroethane	82000	U	ug/kg	82000	80000	U	ug/kg	80000						
Stroale	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
1,4-Naphthoquinone	170000	U	ug/kg	170000	160000	U	ug/kg	160000						
1,3-Dinitrobenzene	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
5-Mitro-o-toluidine	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
4-Mitroquinoline-1-oxide	82000	U	ug/kg	82000	80000	U	ug/kg	80000						
Methapyrene	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
3,3'-Dimethylbenzidine	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
Hexachloropropene	82000	U	ug/kg	82000	80000	U	ug/kg	80000						
Arsenite	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
2-Chlorophenol	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
3- & 4-Methylphenol (2)	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
4-Methylphenol	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
Diphenylamine	8200	U	ug/kg	8200	8000	U	ug/kg	8000						
Hexachloropropene	1700	U	ug/kg	1700	1600	U	ug/kg	1600						
2-Acetylaminofluorene	8200	U	ug/kg	8200	8000	U	ug/kg	8000						

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (027D) ANALYTICAL RUN.



NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

RB730003RE  
RFADATA  
49SD016RE  
12-SEP-94

RB730001  
RFADATA  
49SD017  
12-SEP-94

RB730002  
RFADATA  
49SD017D  
12-SEP-94

4-Chlorophenyl-phenylether	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Fluorene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
4-Nitroaniline	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
4,6-Dinitro-2-methylphenol	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
N-Nitrosodiphenylamine (1)	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
1,2-Diphenylhydrazine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
4-Bromophenyl-phenylether	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Hexachlorobenzene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Pentachlorophenol	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
Phenanthrene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Anthracene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Di-n-Butylphthalate	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Fluoranthene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Pyrene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Butylbenzylphthalate	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
3,3'-Dichlorobenzidine	ug/kg	3400	U	ug/kg	3400	3300	U	ug/kg	3300
Benzo(a)anthracene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Chrysene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Bis(2-Ethylhexyl)phthalate	ug/kg	440	J	ug/kg	180	J		ug/kg	1600
Di-n-Butylphthalate	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Benzo(b)fluoranthene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Benzo(k)fluoranthene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Benzo(a)pyrene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Indeno(1,2,3-cd)pyrene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Dibenz(a,h)anthracene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Benzo(g,h,i)perylene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
2-Picoline	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
Methyl methanesulfonate	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Ethyl methanesulfonate	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Acetophenone	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
N-Nitrosopiperidine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Phenyl-tert-butylamine	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
2,6-Dichlorophenol	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
N-Nitroso-di-n-butylamine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
N-Nitrosodiphenylamine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
N-Nitrosopyrrolidine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Benzo(a)pyrene	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
1,2,4,5-Tetrachlorobenzene	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
Pentachlorobenzene	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
1-Naphthylamine	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
2-Naphthylamine	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
2,3,6-Tetrachlorophenol	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Phenacetin	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
4-Aminobiphenyl	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
Pentachloronitrobenzene	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
Propionaldehyde	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
p-(Dimethylamino)azobenzene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
7,12-Dimethylbenzo(a)Anthracene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
3-Methylcholanthrene	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
Pyridine	ug/kg	8200	U	ug/kg	8200	8000	U	ug/kg	8000
N-Nitrosomethyl ethylamine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600
N-Nitrosomorpholine	ug/kg	1700	U	ug/kg	1700	1600	U	ug/kg	1600

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

R8730003RE

RFA DATA

49SD016RE

12-SEP-94

R8730001

RFA DATA

49SD017

12-SEP-94

R8730002

RFA DATA

49SD017D

12-SEP-94

NAME	ug/kg	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKC SIOC (8270-24)													
N-Nitrosodimethylamine													
Phenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Aniline	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
big (2-Chloroethyl) ether	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
1,3-Dichlorobenzene	7 UJ	13	U	ug/kg	13	U	ug/kg	13	U	12	U	ug/kg	12
1,4-Dichlorobenzene	7 UJ	13	U	ug/kg	13	U	ug/kg	13	U	12	U	ug/kg	12
Benzyl Alcohol	7 UJ	13	U	ug/kg	13	U	ug/kg	13	U	12	U	ug/kg	12
1,2-Dichlorobenzene													
2-Methylphenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
bis(2-Chloroisopropyl) ether	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
N-Micro-di-n-propylamine	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Hexachloroethane	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Nitrobenzene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Isophorone	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2-Nitrophenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,4-Dimethylphenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Benzolic acid	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
bis(2-Chloroethoxy)methane	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,4-Dichlorophenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
1,2,4-Trichlorobenzene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Naphthalene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
4-Chloroaniline	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Hexachlorobutadiene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
4-Chloro-3-methylphenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2-Methylnaphthalene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Hexachlorocyclopentadiene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,4,6-Trichlorophenol	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Dimethylphthalate	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,4,5-Trichlorophenol	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
2-Chloronaphthalene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2-Nitroaniline	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
Acenaphthylene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,6-Dinitrotoluene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
3-Nitroaniline	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
Acenaphthene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,6-Dinitrophenol	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
4-Nitrophenol	ug/kg	8200	U	ug/kg	8200	U	ug/kg	8200	U	8000	U	ug/kg	8000
Dibenzofuran	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
2,6-Dinitrotoluene	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600
Diethylphthalate	ug/kg	1700	U	ug/kg	1700	U	ug/kg	1700	U	1600	U	ug/kg	1600

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8730004 RFA DATA 49SD013 12-SEP-94  
R8730006 RFA DATA 49SD014 12-SEP-94  
R8730005 RFA DATA 49SD015 12-SEP-94  
R8730003 RFA DATA 49SD016 12-SEP-94

NAME	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
Hexachlorocyclopentadiene	4100 U		ug/kg	4100	4400 U		ug/kg	4400	4100 U		ug/kg	4100	4300 U		ug/kg	4300
p-Phenylenediamine	41000 U		ug/kg	41000	44000 U		ug/kg	44000	41000 U		ug/kg	41000	43000 U		ug/kg	43000
Endrin	4100 U		ug/kg	4100	4400 U		ug/kg	4400	4100 U		ug/kg	4100	4300 U		ug/kg	4300
Isodrin	84000 U		ug/kg	84000	90000 U		ug/kg	90000	85000 U		ug/kg	85000	89000 U		ug/kg	89000
1,4-Naphthoquinone	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
1,5-Dinitrobenzene	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
5-Nitro-o-toluidine	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
1,3,5-Trinitrobenzene	41000 UJ		ug/kg	4100	44000 UJ		ug/kg	4400	41000 UJ		ug/kg	4100	43000 UJ		ug/kg	4300
4-Nitroquinoline-1-oxide	4100 U		ug/kg	4100	4400 U		ug/kg	4400	4100 U		ug/kg	4100	4300 U		ug/kg	4300
Metapyrene	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
3,3'-Dimethylbenzidine	4100 UJ		ug/kg	4100	44000 UJ		ug/kg	4400	41000 UJ		ug/kg	4100	43000 UJ		ug/kg	4300
Hexachlorophene	4100 U		ug/kg	4100	4400 U		ug/kg	4400	4100 U		ug/kg	4100	4300 U		ug/kg	4300
Arsenite	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
2-Chlorophenol	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
3,4-Dimethylphenol (2)	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
4-Nitrophenol	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
Diphenylamine	4100 U		ug/kg	4100	4400 U		ug/kg	4400	4100 U		ug/kg	4100	4300 U		ug/kg	4300
Hexachlorocyclopentadiene	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890
2-Acetylaminofluorene	840 U		ug/kg	840	900 U		ug/kg	900	850 U		ug/kg	850	890 U		ug/kg	890

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4-DICHLOROBENZENE WERE GENERATED FROM THE SYOC (R8730) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl phenylether	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Fluorene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
4-Nitroaniline	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
4,6-Dinitro-2-methylphenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitrosodiphenylamine (1)	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
1,2-Diphenylhydrazine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
4-Bromophenyl phenylether	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Hexachlorobenzene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Pentachlorophenol	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
Phenanthrene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Anthracene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Di-n-Butylphthalate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Fluoranthene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Pyrene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Butylbenzylphthalate	1700 U	ug/kg	1700	1800 U	ug/kg	1800	1700 U	ug/kg	1800 U	ug/kg	1800					
3,3'-Dichlorobenzidine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Benzo(a)anthracene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Chrysene	110 J	ug/kg	840	94 J	ug/kg	900	460 J	ug/kg	890 U	ug/kg	890					
bi(2-Ethylhexyl)phthalate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Di-n-octylphthalate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Benzo(b)fluoranthene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Benzo(k)fluoranthene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Benzo(a)pyrene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Indeno(1,2,3-cd)pyrene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Dibenz(a,h)anthracene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Benz(a,h,i)perylene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
2-Picoline	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Methyl methanesulphonate	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
Ethyl methanesulphonate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Acetophenone	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitrosopiperidine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Phenyl tert-butylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
2,6-Dichlorophenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitroso-di-n-butylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitrosodiphenylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitrosopropylidene	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
Benzidine	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
1,2,3-Tetrachlorobenzene	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
Pentachlorobenzene	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
1-Naphthylamine	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
2-Naphthylamine	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
2,3,4,6-Tetrachlorophenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Phenacetin	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
4-Aminobiphenyl	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
Pentachloronitrobenzene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Formaldehyde	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
P-(Dimethylamino)azobenzene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
7,12-Dimethylbenz(a)Anthracene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
3-Methylcholanthrene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
Pyridine	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4300 U	ug/kg	4300					
N-Nitrosomethyl ethylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					
N-Nitrosomorpholine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	890 U	ug/kg	890					

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:				R8730004				R8730006				R8730005				R8730003			
Site				RFA001A				RFA001A				RFA001A				RFA001A			
Locator				49SD013				49SD014				49SD015				49SD016			
Collect Date:				12-SEP-94				12-SEP-94				12-SEP-94				12-SEP-94			
VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
8KG SVOC (B27D-24)																			
N-Nitrosodimethylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Phenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Aniline	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
bis (2-Chloroethyl) ether	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
1,3-Dichlorobenzene	6 U	ug/kg	6	7 U	ug/kg	7	6 U	ug/kg	6	7 R	ug/kg	7 R	7 R	ug/kg	7 R				
1,4-Dichlorobenzene	6 U	ug/kg	6	7 U	ug/kg	7	6 U	ug/kg	6	7 R	ug/kg	7 R	7 R	ug/kg	7 R				
Benzyl Alcohol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
1,2-Dichlorobenzene	6 U	ug/kg	6	7 U	ug/kg	7	6 U	ug/kg	6	7 R	ug/kg	7 R	7 R	ug/kg	7 R				
2-Nethylphenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
bis(2-Chloroisopropyl) ether	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
N-Nitroso-di-n-propylamine	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Hexachloroethane	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Nitrobenzene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Isophorone	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2-Nitrophenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4-Dimethylphenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Benzic acid	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
bis(2-Chloroethoxy) methane	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4-Dichlorophenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
1,2,4-Trichlorobenzene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Naphthalene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
4-Chloroaniline	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Hexachlorocyclopentadiene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
4-Chloro-3-methylphenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2-Methylnaphthalene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Hexachlorocyclopentadiene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4,6-Trichlorophenol	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Dimethylphthalate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4,5-Trichlorophenol	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
2-Chloronaphthalene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2-Nitroaniline	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
Acenaphthylene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,6-Dinitrotoluene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
3-Nitroaniline	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
Acenaphthene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4-Dinitrophenol	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
4-Nitrophenol	4100 U	ug/kg	4100	4400 U	ug/kg	4400	4100 U	ug/kg	4100	4300 U	ug/kg	4300	4300 U	ug/kg	4300				
Dibenzofuran	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
2,4-Dinitrotoluene	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				
Diethylphthalate	840 U	ug/kg	840	900 U	ug/kg	900	850 U	ug/kg	850	890 U	ug/kg	890	890 U	ug/kg	890				

NAVSIA MATPORT  
RFA Sediment Data

Lab Sample Number:		M7645007		M7645006		M7645009		M7645008								
Site		RFADATA		RFADATA		RFADATA		RFADATA								
Locator		49SD009		49SD010		49SD011		49SD012								
Collect Date:		02-AUG-94		02-AUG-94		02-AUG-94		02-AUG-94								
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrene	66000	U	ug/kg	66000	53000	U	ug/kg	53000	69000	U	ug/kg	69000	61000	U	ug/kg	61000
3,3'-Dimethylbenzidine	13000	U	ug/kg	13000	11000	U	ug/kg	11000	14000	U	ug/kg	14000	12000	U	ug/kg	12000
Hexachlorophene	660000	U	ug/kg		530000	U	ug/kg		690000	U	ug/kg		610000	U	ug/kg	
Arenite	66000	U	ug/kg	66000	53000	U	ug/kg	53000	69000	U	ug/kg	69000	61000	U	ug/kg	61000
2-Chlorophenol	13000	U	ug/kg	13000	11000	U	ug/kg	11000	14000	U	ug/kg	14000	12000	U	ug/kg	12000
3, 4-Methylphenol (2)	13000	U	ug/kg	13000	11000	U	ug/kg	11000	14000	U	ug/kg	14000	12000	U	ug/kg	12000
4-Methylphenol	-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
Diphenylamine	66000	U	ug/kg	66000	53000	U	ug/kg	53000	69000	U	ug/kg	69000	61000	U	ug/kg	61000
Hexachloropropene	13000	U	ug/kg	13000	11000	U	ug/kg	11000	14000	U	ug/kg	14000	12000	U	ug/kg	12000
2-Acetylaminofluorene	-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.



# NAVSIA MATPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
01-n-Butylphthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Fluoranthene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Pyrene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Butylbenzylphthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
3,3'-Dichlorobenzidine	27000 U		ug/kg	27000	22000 U		ug/kg	22000	28000 U		ug/kg	28000	25000 U		ug/kg	25000
Benz(a)anthracene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Chrysene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
ba(2-Ethylhexyl)phthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
01-n-octylphthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benz(b)fluoranthene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benz(c)fluoranthene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benz(e)pyrene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Indeno(1,2,3-cd)pyrene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
01-Benz(a,h)anthracene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benz(g,h,i)perylene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Picoline	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Methyl methanesulfonate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Ethyl methanesulfonate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Acetophenone	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitroethylperidine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Phenyl tert-butylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,6-Dichlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitro-o-1-n-butylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitroethylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitropropylidene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benzidine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
1,2,4,5-Tetrachlorobenzene	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Pentachlorobenzene	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
1-Naphthylamine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
2-Naphthylamine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
2,3,4,6-Tetrachlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Phenacetin	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Aminobiphenyl	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Pentachloronitrobenzene	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Pernatide	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
p-(Dimethylamino)azobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
7,12-Dimethylbenz(A)Anthracene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
3-Methylcholanthrene	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Pyridine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
N-Nitrosomethyl ethylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
N-Nitrosomorpholine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
o-Toluidine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Hexachloropropene	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
p-Phenylene diamine	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
Isosafrole	66000 U		ug/kg	66000	53000 U		ug/kg	53000	69000 U		ug/kg	69000	61000 U		ug/kg	61000
1,4-Naphthoquinone	1300000 U		ug/kg	1300000	1100000 U		ug/kg	1100000	1400000 U		ug/kg	1400000	1200000 U		ug/kg	1200000
1,3-Dinitrobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
5-Methoxy-toluidine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
1,3,5-Trinitrobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Nitroquinoline-1-oxide	660000 U		ug/kg	660000	530000 U		ug/kg	530000	690000 U		ug/kg	690000	610000 U		ug/kg	610000

# NAVSIA MAYPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG. SYNC (8270-24)																
M-Nitrosodimethylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Phenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Aniline	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
bis (2-Chloroethyl) ether	13000 U		ug/kg	13000	23 U		ug/kg	23	14000 U		ug/kg	14000	12000 U		ug/kg	12000
1,3-Dichlorobenzene	16 U		ug/kg	16	11000 U		ug/kg	11000	13 U		ug/kg	13	12000 U		ug/kg	12000
1,4-Dichlorobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benzyl Alcohol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	13 U		ug/kg	13	12000 U		ug/kg	12000
1,2-Dichlorobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Methylphenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
bis(2-Chloroisopropyl) ether	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitroso-di-n-propylamine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Hexachloroethane	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Micronene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Isophorone	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Nitrophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4-Dimethylphenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Benzoic acid	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
bis(2-Chloroethoxy)methane	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4-Dichlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
1,2,4-Trichlorobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Naphthalene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Chloronitroline	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Hexachlorobutadiene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Chloro-5-methylphenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Methylnaphthalene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Hexachlorocyclopentadiene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4,6-Trichlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Dimethylphthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4,5-Trichlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Chloronaphthalene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2-Nitrophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Acenaphthylene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,6-Dinitrotoluene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
3-Nitrophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Acenaphthene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4-Dinitrophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Mitrophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Dibenzofuran	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
2,4-Dinitrotoluene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Diethylphthalate	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Chlorophenyl-phenylether	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Fluorene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Nitroaniline	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4,6-Dinitro-2-methylphenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
M-Nitrosodiphenylamine (1)	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
1,2-Diphenylhydrazine	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
4-Oranophenyl-phenylether	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Hexachlorobenzene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Pentachlorophenol	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000
Phenanthrene	13000 U		ug/kg	13000	11000 U		ug/kg	11000	14000 U		ug/kg	14000	12000 U		ug/kg	12000



NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R873003RE  
RFADATA  
49SD016RE  
12-SEP-94

R8730001  
RFADATA  
49SD017  
12-SEP-94

R8730002  
RFADATA  
49SD017D  
12-SEP-94

1,2-Dichlorobenzene  
2-Chloroethylvinylether  
Ethyl methacrylate  
1,2,3-Trichloropropane  
trans-1,4-Dichloro-2-butene  
Isobutyl alcohol  
1,1,1,2-Tetrachloroethane  
1,2-Dibromo-3-chloropropane  
1,2-Dibromoethane  
1,4-Dioxane  
3-Chloropropane  
Acetonitrile  
Chloropropane  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
7 U	U	ug/kg		13 U	U	ug/kg	13	12 U	U	ug/kg	12
14 U	U	ug/kg		26 U	U	ug/kg		25 U	U	ug/kg	
7 U	U	ug/kg		13 U	U	ug/kg	13	12 U	U	ug/kg	12
7 U	U	ug/kg		13 U	U	ug/kg	13	12 U	U	ug/kg	12
270 R	R	ug/kg		13 U	U	ug/kg	13	12 U	U	ug/kg	12
270 R	R	ug/kg		510 R	R	ug/kg		500 R	R	ug/kg	
7 U	U	ug/kg		13 U	U	ug/kg	13	12 U	U	ug/kg	12
14 U	U	ug/kg		26 U	U	ug/kg		25 U	U	ug/kg	
14 U	U	ug/kg		13 U	U	ug/kg		12 U	U	ug/kg	
270 R	R	ug/kg		510 R	R	ug/kg		500 R	R	ug/kg	
7 U	U	ug/kg		13 U	U	ug/kg		12 U	U	ug/kg	
140 U	U	ug/kg	140	260 U	U	ug/kg	260	16 U	U	ug/kg	
7 U	U	ug/kg		13 U	U	ug/kg		12 U	U	ug/kg	
14 U	U	ug/kg	14	26 U	U	ug/kg		25 U	U	ug/kg	
14 U	U	ug/kg		26 U	U	ug/kg		250 U	U	ug/kg	
140 U	U	ug/kg		26 U	U	ug/kg	26	25 U	U	ug/kg	25

U = NOT DETECTED, R = RESULT IS REJECTED  
J = ESTIMATED VALUE, UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVDC (6270) ANALYTICAL RUN.



NAVSTA MATPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	6 U		ug/kg	6	7 U		ug/kg	7	850 U		ug/kg	850	7 R		ug/kg	
2-Chloroethylvinylether	13 UJ		ug/kg		14 UJ		ug/kg		13 UJ		ug/kg		7 R		ug/kg	
Ethyl methacrylate	6 U		ug/kg	6	7 U		ug/kg	7	6 U		ug/kg	6	7 R		ug/kg	
1,2,3-Trichloropropene	6 U		ug/kg	6	7 U		ug/kg	7	6 U		ug/kg	6	7 R		ug/kg	
trans-1,4-Dichloro-2-butene	6 U		ug/kg	6	7 U		ug/kg	7	6 U		ug/kg	6	7 R		ug/kg	
Isobutyl alcohol	250 R		ug/kg		270 R		ug/kg		260 R		ug/kg		270 R		ug/kg	
1,1,1,2-Tetrachloroethane	6 U		ug/kg	6	7 U		ug/kg	7	6 U		ug/kg	6	7 R		ug/kg	
1,2-Dibromo-3-chloropropene	13 UJ		ug/kg		14 UJ		ug/kg		13 UJ		ug/kg		14 R		ug/kg	
1,2-Dibromoethane	6 U		ug/kg	6	7 U		ug/kg	7	6 U		ug/kg	6	7 R		ug/kg	
1,4-Dioxane	250 R		ug/kg		270 R		ug/kg		260 R		ug/kg		270 R		ug/kg	
3-Chloropropene	6 UJ		ug/kg		7 UJ		ug/kg		6 UJ		ug/kg		7 R		ug/kg	
Acetonitrile	130 U		ug/kg	130	140 U		ug/kg	140	130 U		ug/kg	130	140 R		ug/kg	
Chloroprene	6 UJ		ug/kg		7 UJ		ug/kg		6 UJ		ug/kg		7 R		ug/kg	
Methacrylonitrile	13 UJ		ug/kg		14 UJ		ug/kg		13 UJ		ug/kg		14 R		ug/kg	
Methyl methacrylate	13 UJ		ug/kg		14 UJ		ug/kg		13 UJ		ug/kg		14 R		ug/kg	
Pentachloroethane	130 UJ		ug/kg		140 UJ		ug/kg		130 UJ		ug/kg		140 R		ug/kg	
Propionitrile	130 UJ		ug/kg		140 UJ		ug/kg		130 UJ		ug/kg		140 R		ug/kg	
Vinyl acetate	13 U		ug/kg	13	14 U		ug/kg	14	13 U		ug/kg	13	14 R		ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

R8730004

RFA DATA

49SD013

12-SEP-94

R8730006

RFA DATA

49SD014

12-SEP-94

R8730005

RFA DATA

49SD015

12-SEP-94

R8730003

RFA DATA

49SD016

12-SEP-94

ug/kg

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

BKG VOCs (8260+11)

Chloromethane

Bromomethane

Vinyl chloride

Chloroethane

Methylene chloride

Acetone

Carbon disulfide

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloroethene (total)

Chloroform

1,2-Dichloroethane

2-Butanone

1,1,1-Trichloroethane

Carbon tetrachloride

Bromodichloromethane

1,2-Dichloropropane

cis-1,3-dichloropropene

Trichloroethene

Dibromochloromethane

1,1,2-Trichloroethane

Benzene

Strene-1,3-Dichloropropene

Bromoform

4-Methyl-2-pentanone

2-Hexanone

Tetrachloroethene

1,1,2,2-Tetrachloroethane

Toluene

Chlorobenzene

Ethylbenzene

Styrene

Xylenes (total)

Trichlorofluoromethane

1,3-Dichlorobenzene

Acrolein

Iodoethane

1,4-Dichlorobenzene

Acrylonitrile

Dibromomethane

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

13 U

ug/kg

13

14 U

ug/kg

14

13 U

ug/kg

13

14 R

ug/kg

14 R

NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

M7645007  
RFADATA  
49SD009  
02-AUG-94

DL

VALUE

M7645006  
RFADATA  
49SD010  
02-AUG-94

DL

VALUE

M7645009  
RFADATA  
49SD011  
02-AUG-94

DL

VALUE

M7645008  
RFADATA  
49SD012  
02-AUG-94

DL

3-Chloropropene  
Acrylonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

16 U ug/kg  
320 U ug/kg  
16 U ug/kg  
32 U ug/kg  
32 U ug/kg  
320 U ug/kg  
32 U ug/kg

16  
320  
16  
32  
32  
320  
32

23 U ug/kg  
450 U ug/kg  
23 U ug/kg  
45 U ug/kg  
45 U ug/kg  
450 U ug/kg  
45 U ug/kg

23  
450  
23  
45  
45  
450  
45

13 U ug/kg  
260 U ug/kg  
13 U ug/kg  
26 U ug/kg  
26 U ug/kg  
260 U ug/kg  
26 U ug/kg

13  
260  
13  
26  
26  
260  
26

17 U ug/kg  
330 U ug/kg  
17 U ug/kg  
33 U ug/kg  
33 U ug/kg  
330 U ug/kg  
33 U ug/kg

17  
330  
17  
33  
33  
330  
33

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-D; 1,3-D; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE BYOC (8270) ANALYTICAL RUN.





NAVSIA MATPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

GROUND WATER QUALITY

Alkalinity as CaCO3

Ammonia-N

Chloride

Hardness as CaCO3

Nitrate/Nitrite-N

Oil and Grease

Phosphorous-P, Total

Sulfate

Sulfide

Total Dissolved Solids

Total Kjeldahl Nitrogen

Total Organic Carbon

COLOR  
Color

pH

TOTAL PETROLEUM HYDROCARBONS  
Total petroleum hydrocarbon

166	mg/l	150	mg/l	150	mg/l	146	mg/l
.3	mg/l	.3 U	mg/l	.3 U	mg/l	.3 U	mg/l
525	mg/l	525	mg/l	512	mg/l	532	mg/l
317	mg/l	288	mg/l	308	mg/l	308	mg/l
.1 U	mg/l	.1 U	mg/l	.1 U	mg/l	.1 U	mg/l
.31	mg/l	.22	mg/l	.25	mg/l	.34	mg/l
57.7	mg/l	65.1	mg/l	55.8	mg/l	61.8	mg/l
24.7	mg/l	1 U	mg/l	1 U	mg/l	1 U	mg/l
2.6	mg/l	3.2	mg/l	106	mg/l	2.3	mg/l
-	mg/l	-	mg/l	-	mg/l	-	mg/l
100	APHA	70	APHA	70	APHA	70	APHA
7.8	units	8.2	units	8.5	units	8.4	units
-	mg/l	-	mg/l	-	mg/l	-	mg/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-DICHLOROBENZENE, 1,3-DICHLOROBENZENE, 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7645002	RFA DATA	49SM009	02-AUG-94	M7645001	RFA DATA	49SM010	02-AUG-94	M7645004	RFA DATA	49SM011	02-AUG-94	M7645003	RFA DATA	49SM012	02-AUG-94

## REG WATER METALS

UG WATER METALS														
	ug/l													
Antimony	2.2 U	ug/l	2.2	2.4 J	ug/l	2.6 J	ug/l	2.2 U	ug/l	2.2 U	ug/l	2.2		
Arsenic	1.7 J	ug/l		6.8 J	ug/l	2.9 J	ug/l	1.4 J	ug/l	1.4 J	ug/l			
Barium	18.4 J	ug/l		35.6 J	ug/l	12 J	ug/l	15 J	ug/l	15 J	ug/l			
Beryllium	.18 U	ug/l	.18	.68 J	ug/l	.18 U	ug/l	.18 U	ug/l	.18 U	ug/l	.18		
Cadmium	3 UJ	ug/l		6 J	ug/l	3 UJ	ug/l	3 UJ	ug/l	3 UJ	ug/l	.18		
Calcium	2.1 J	ug/l			ug/l	2 U	ug/l	2 U	ug/l	2 U	ug/l	2		
Chromium	2.7 UJ	ug/l		14.1	ug/l	2.7 UJ	ug/l	2.7 UJ	ug/l	2.7 UJ	ug/l	2		
Cobalt	12.4 J	ug/l		2.7 UJ	ug/l	4 U	ug/l	4 U	ug/l	4 U	ug/l	4		
Copper	.32 U	ug/l	.32	18.4 J	ug/l	.32 U	ug/l	.32 U	ug/l	.32 U	ug/l	.32		
Cyanide	4.1 J	ug/l		.33 J	ug/l		ug/l		ug/l		ug/l			
Iron		ug/l			ug/l		ug/l		ug/l		ug/l			
Lead		ug/l		34.2 J	ug/l	2 U	ug/l	2 U	ug/l	2 U	ug/l	2		
Magnesium		ug/l			ug/l		ug/l		ug/l		ug/l			
Manganese		ug/l			ug/l		ug/l		ug/l		ug/l			
Mercury	.16 U	ug/l	.16	.23	ug/l	.16 U	ug/l	.16 U	ug/l	.16 U	ug/l	.16		
Nickel	78.6 J	ug/l		17.6 J	ug/l	7.3 UJ	ug/l	7.3 UJ	ug/l	7.3 UJ	ug/l	1.3		
Selenium	1.3 U	ug/l	1.3	1.3 U	ug/l	1.3 U	ug/l	1.3 U	ug/l	1.3 U	ug/l	1.3		
Silver	2.1 U	ug/l	2.1	2.1 U	ug/l	2.1 U	ug/l	2.1 U	ug/l	2.1 U	ug/l	2.1		
Sodium		ug/l			ug/l		ug/l		ug/l		ug/l			
Thallium	1.3 U	ug/l	1.3	1.3 U	ug/l	1.3 U	ug/l	1.3 U	ug/l	1.3 U	ug/l	1.3		
Tin	9.4 U	ug/l	9.4	9.4 U	ug/l	9.4 U	ug/l	9.4 U	ug/l	9.4 U	ug/l	9.4		
Vanadium	4.8 J	ug/l		29 J	ug/l	3.4 J	ug/l	3.3 J	ug/l	3.3 J	ug/l			
Zinc	38	ug/l		164	ug/l	7.5 U	ug/l	6 U	ug/l	6 U	ug/l	6		

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



MAVSTA MAYPORT  
RFA Surface Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7645002	RFA DATA	49SM009	02-AUG-94	M7645001	RFA DATA	49SM010	02-AUG-94	M7645004	RFA DATA	49SM011	02-AUG-94	M7645003	RFA DATA	49SM012	02-AUG-94

ug/l

PESTICIDES/PCBs (SU-046, R000)															
alpha-BHC	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
beta-BHC	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
delta-BHC	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
gamma-BHC (lindane)	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Heptachlor	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Aldrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Heptachlor epoxide	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Endosulfan I	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Dieldrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
4,4-DDE	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Endrin	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
Endosulfan II	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
4,4-DDD	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
Endosulfan sulfate	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
4,4-DDT	.08 U	ug/l	.08	.08 U	ug/l	.08	.08 U	ug/l	.08	.08 U	ug/l	.08	.08 U	ug/l	.08
Methoxychlor	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
Endrin aldehyde	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
Endrin ketone	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04
Chlordane	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Chlorobenzilate	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5
Dallate	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5
Toxaphene	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Isoodrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Kepona	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1016	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1221	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1232	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1242	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1246	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1254	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02
Atoclor-1260	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Surface Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

Lab Sample Number:	M7645002	M7645001	M7645004	M7645003												
Site	RFADATA	RFADATA	RFADATA	RFADATA												
Locator	49SM009	49SM010	49SM011	49SM012												
Collect Date:	02-AUG-94	02-AUG-94	02-AUG-94	02-AUG-94												
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrillene	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50
3,3'-Dimethylbenzidine	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
Hexachlorophene	500 R		ug/l	500 R	500 R		ug/l	500 R	500 R		ug/l	500 R	500 R		ug/l	500 R
Aramite	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50
2-Chlorophenol	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
3- & 4-Methylphenol (2)	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
4-Methylphenol	-		ug/l	-	-		ug/l	-	-		ug/l	-	-		ug/l	-
Diphenylamine	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50	50 U		ug/l	50
Hexachlorocyclopene	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
2-Acetylaminofluorene	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

# NAVSIA MAYPORT RFA Surface Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Di-n-Butylphthalate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Fluoranthene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Pyrene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Butylbenzylphthalate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
3,3'-Dichlorobenzidine	20 U	ug/l	20	20 U	20 U	ug/l	20	20	20 U	ug/l	20	20	20 U	ug/l	20	20
Benzo(a)anthracene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Chrysene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Bis(2-Ethylhexyl)phthalate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Di-n-octylphthalate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Benzo(b)fluoranthene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Benzo(k)fluoranthene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Benzo(a)pyrene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Indeno(1,2,3-cd)pyrene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Dibenz(a,h)anthracene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Benzo(g,h,i)perylene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
2-Picoline	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Methyl methanesulfonate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Ethyl methanesulfonate	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Acetophenone	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
N-Mitropropylidene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Phenyl tert-butylamine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
2,6-Dichlorophenol	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
N-Mitroso-di-n-butylamine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
N-Mitrosodimethylamine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
N-Mitropropylidene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Benzidine	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
1,2,4,5-Tetrachlorobenzene	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
Pentachlorobenzene	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
1-Naphthylamine	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
2-Naphthylamine	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
2,3,4,6-Tetrachlorophenol	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Phenacetin	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
4-Aminobiphenyl	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
Pentachloronitrobenzene	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
Propionitrile	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
p-(Dimethylamino)azobenzene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
7,12-Dimethylbenz(a)Anthracene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
3-Methylcholanthrene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Pyridine	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
N-Mitrosomethyl ethylamine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
N-Mitrosomorpholine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
o-Toluidine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
Hexachloropropene	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
p-Phenylene diamine	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
Safrrole	50 U	ug/l	50	50 U	50 U	ug/l	50	50	50 U	ug/l	50	50	50 U	ug/l	50	50
Isosafrole	1000 U	ug/l	1000	1000 U	1000 U	ug/l	1000	1000	1000 U	ug/l	1000	1000	1000 U	ug/l	1000	1000
1,4-Naphthoquinone	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
1,3-Dinitrobenzene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
5-Nitro-o-toluidine	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
1,3,5-Trinitrobenzene	10 U	ug/l	10	10 U	10 U	ug/l	10	10	10 U	ug/l	10	10	10 U	ug/l	10	10
4-Nitroquinoline-1-oxide	500 R	ug/l	500 R	500 R	500 R	ug/l	500 R	500 R	500 R	ug/l	500 R	500 R	500 R	ug/l	500 R	500 R

# NAVSTA MAYPORT RFA Surface Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7645002	RFA DATA	49SM009	02-AUG-94	M7645001	RFA DATA	49SM010	02-AUG-94	M7645004	RFA DATA	49SM011	02-AUG-94	M7645003	RFA DATA	49SM012	02-AUG-94

ug/l

8KG SVOC (8270-24)															
Nitrodimethylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Aniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Bis (2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	5 U	ug/l	5	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Benzyl Alcohol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Bis(2-Chloroisopropyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Benzoic acid	50 R	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Bis(2-Chloroethoxy)methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Methylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Nitrophenol	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,5-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenyl ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Nitroaniline	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4,6-Dinitro-2-methylphenol	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrodimethylamine (1)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Diphenylhydrazine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Bromophenyl-phenyl ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Pentachlorophenol	50 U	ug/l	50	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Phenanthrene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

MAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3-Chloropropene	5 U		ug/l	5	5 U		ug/l	5	5 U		ug/l	5	5 U		ug/l	5
Acetonitrile	100 U		ug/l	100	100 U		ug/l	100	100 U		ug/l	100	100 U		ug/l	100
Chloroprene	-		ug/l	-	-		ug/l	-	-		ug/l	-	-		ug/l	-
Methacrylonitrile	5 U		ug/l	5	5 U		ug/l	5	5 U		ug/l	5	5 U		ug/l	5
Methyl methacrylate	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
Pentachloroethane	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10
Propionitrile	100 U		ug/l	100	100 U		ug/l	100	100 U		ug/l	100	100 U		ug/l	100
Vinyl acetate	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10	10 U		ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSIN MATPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7645002	RFADATA			M7645001	RFADATA			M7645004	RFADATA			M7645003	RFADATA		
49SM09				49SM10				49SM11				49SM12			
02-AUG-94				02-AUG-94				02-AUG-94				02-AUG-94			

Bkg Vocs (0240-11)	ug/l														
Chloromethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Bromomethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Vinyl chloride	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Chloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Methylene chloride	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acetone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Carbon disulfide	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,1-dichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,1-dichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2-dichloroethane (total)	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Chloroform	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2-dichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
2-Butenone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,1,1-Trichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Carbon tetrachloride	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Bromodichloromethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2-dichloropropane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,3-dichloropropane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Trichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Dibromochloromethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,1,2-Trichloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Benzene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
trans-1,3-Dichloropropene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Bromoform	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
4-Methyl-2-pentanone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methanone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Tetrachloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,1,2,2-Tetrachloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Toluene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Chlorobenzene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Ethylbenzene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Styrene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Xylenes (total)	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Trichlorofluoromethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,3-Dichlorobenzene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Acrolein	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100
Iodomethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acrylonitrile	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100
Dibromomethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chloroethylvinylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Ethyl methacrylate	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2,3-Trichloropropene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
trans-1,4-Dichloro-2-butene	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
Isobutyl alcohol	200 U	ug/l	200	200 U	ug/l	200	200 U	ug/l	200	200 U	ug/l	200	200 U	ug/l	200
1,1,1,2-Tetrachloroethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,2-Dibromo-3-chloropropane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dibromoethane	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5
1,4-Dioxane	200 R	ug/l	200	200 R	ug/l	200	200 R	ug/l	200	200 R	ug/l	200	200 R	ug/l	200



NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

R0230001

RFA DATA

02MAD095

21-JUN-94

R0217001

RFA DATA

02MAD105

16-JUN-94

R0607003

RFA DATA

02MAD135

24-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL

GROUND WATER QUALITY

Alkalinity as CaCO3

Ammonia-N

Chloride

Hardness as CaCO3

Nitrate/Nitrite-N

Oil and Grease

Phosphorus-P, Total

Sulfate

Total Dissolved Solids

Total Kjeldahl Nitrogen

Total Organic Carbon

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

mg/l

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

30

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

APHA

NAVSTA MAYPORT  
RFA Ground Water Date

Lab Sample Number:

Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8229001	RFADATA			R8218001	RFADATA			R8609004	RFADATA		
02MAD09S				02MAD10S				02MAD013S			
21-JUN-94				16-JUN-94				24-AUG-94			

ug/l

Antimony	50 UJ	ug/l		50 UJ	ug/l		5 U	ug/l	5
Arsenic	6 UJ	ug/l		6 UJ	ug/l		18.1 J	ug/l	.3
Beryllium	8.5 J	ug/l		25.2 J	ug/l		.3 U	ug/l	.3
Cadmium	.3 U	ug/l		.3 U	ug/l		1 U	ug/l	1
Chromium	1 U	ug/l		1 U	ug/l		134000	ug/l	2.6
Cobalt	65900	ug/l		121000	ug/l		2.6 U	ug/l	3.1
Copper	2.6 U	ug/l		3.1 U	ug/l		3.1 U	ug/l	2.7
Cyanide	3.1 U	ug/l		4.4 J	ug/l		2.7 U	ug/l	2.7
Iron	.9 U	ug/l		3.2 J	ug/l		448	ug/l	
Lead	2.7 U	ug/l		530 J	ug/l		6 UJ	ug/l	
Magnesium	655 J	ug/l		6 UJ	ug/l		110000	ug/l	
Manganese	6 UJ	ug/l		219000	ug/l		149	ug/l	
Mercury	207000	ug/l		86.5 J	ug/l		.5 UJ	ug/l	5.9
Nickel	85.3 J	ug/l		.1 UJ	ug/l		5.9 U	ug/l	2.1
Selenium	5.9 U	ug/l		8.6 J	ug/l		30 UJ	ug/l	
Silver	6 UJ	ug/l		30 UJ	ug/l		2.1 U	ug/l	
Sodium	2.1 U	ug/l		2.1 U	ug/l		1760000	ug/l	
Thallium	2040000	ug/l		2010000	ug/l		.6 U	ug/l	
Tin	6 UJ	ug/l		30 UJ	ug/l		8 U	ug/l	
Vanadium	8 U	ug/l		8.9 J	ug/l		4.1 J	ug/l	
Zinc	2.9 J	ug/l		4.6 U	ug/l		2.4 J	ug/l	
	39	ug/l			ug/l			ug/l	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED



Lab Sample Number:  
 Site  
 Locator  
 Collect Date:

NAVSIA MAYPORT  
 RFA Ground Water Data

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8228001	RFADATA			R8215001	RFADATA			R8608003	RFADATA		
02MAD095				02MAD105				02MAD135			
21-JUN-94				16-JUN-94				24-AUG-94			

PESTICIDES/PCBs (SV-846,8080)	ug/l										
alpha-BHC	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
beta-BHC	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
delta-BHC	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
gamma-BHC (lindane)	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Heptachlor	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Aldrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Heptachlor epoxide	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Endosulfen I	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Dieldrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
4,4-DDE	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Endrin	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Endosulfen II	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
4,4-DDD	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Endosulfen sulfate	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
4,4-DDT	.08 U	ug/l	.08	.08 U	ug/l	.08	.08 U	ug/l	.08	.08	.08
Methoxychlor	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Endrin aldehyde	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Endrin ketone	.04 U	ug/l	.04	.04 U	ug/l	.04	.04 U	ug/l	.04	.04	.04
Chlordane	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2	.2
Chlorobenzilate	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5	.5
Diallate	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Toxaphene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Isodrin	.02 U	ug/l	.02	.02 U	ug/l	.02	.02 U	ug/l	.02	.02	.02
Kepone	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Aracior-1016	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Aracior-1221	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2	2
Aracior-1232	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2	2
Aracior-1242	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Aracior-1248	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1	1
Aracior-1254	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5	.5
Aracior-1260	.5 U	ug/l	.5	.5 U	ug/l	.5	.5 U	ug/l	.5	.5	.5

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSIA MAYPORT RFA Ground Water Date

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Mathayrillene	50 U		ug/l		50 U		ug/l		50 U		ug/l		50 U		ug/l	
3,3'-dimethylbenzidine	10 U		ug/l	10	10 U		ug/l	10	-		ug/l		10 U		ug/l	10
Hexachlorophene	500 R		ug/l		500 U		ug/l		-		ug/l		500 R		ug/l	
Arsenite	50 U		ug/l	50	50 U		ug/l	50	-		ug/l		50 U		ug/l	50
2-chlorophenol	10 U		ug/l	10	10 U		ug/l	10	-		ug/l		10 U		ug/l	10
3- & 4-methylphenol (2)	10 U		ug/l	10	10 U		ug/l	10	-		ug/l		10 U		ug/l	10
4-methylphenol	-		ug/l		-		ug/l		-		ug/l		-		ug/l	
Diphenylamine	50 U		ug/l	50	50 U		ug/l	50	-		ug/l		50 U		ug/l	50
Hexachloropropene	10 U		ug/l	10	10 U		ug/l	10	-		ug/l		10 U		ug/l	10
2-Acetylaminofluorene	-		ug/l		-		ug/l		-		ug/l		-		ug/l	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SPOC (8270) ANALYTICAL RUN.

Lab Sample Number:  
Site  
Locator  
Collect Date:

Lab Sample Number:		Site		Collector		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:		Date:			
--------------------	--	------	--	-----------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	--	--

# NAVSIA MAYPORT RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

R8228001

RFA DATA

02MAD09S

21-JUN-94

R8215001

RFA DATA

02MAD10S

16-JUN-94

R8228004

RFA DATA

02MAD10S

21-JUN-94

R8609003

RFA DATA

02MAD13S

24-AUG-94

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5

10 U

ug/l

10

10

10

10

10

ug/l

10 U

ug/l

10

10 U

ug/l

10

10

ug/l

10

5



MAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

ug/l

BKG VOCs (8240-11)															
Chloroethane	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
Bromoethane	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
Vinyl chloride	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
Chloroethene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Methylene chloride	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
Acetone	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Carbon disulfide	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,1-Dichloroethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,1-Dichloroethene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,2-Dichloroethene (total)	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Chloroform	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,2-Dichloroethane	10 R	ug/l	10		10 R	ug/l	10		10 R	ug/l	10		10 R	ug/l	10
2-Butene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,1,1-Trichloroethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Carbon tetrachloride	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Bromodichloromethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,2-Dichloropropane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
cis-1,3-Dichloropropene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Trichloroethene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Dibromochloromethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,1,2-Trichloroethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Benzene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
trans-1,3-Dichloropropene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Bromoform	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
4-Methyl-2-pentanone	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
2-Heptanone	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Tetrachloroethene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,1,2,2-Tetrachloroethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Toluene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Chlorobenzene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Ethylbenzene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Styrene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Xylenes (total)	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Trichlorofluoromethane	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
1,3-Dichlorobenzene	10 R	ug/l	10		10 R	ug/l	10		10 R	ug/l	10		10 R	ug/l	10
Acrolein	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
Iodoethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,4-Dichlorobenzene	100 U	ug/l	100		100 U	ug/l	100		100 U	ug/l	100		100 U	ug/l	100
Acrylonitrile	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Dibromomethane	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
2-Chloroethylvinylether	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Ethyl methacrylate	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,2,3-Trichloropropene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
trans-1,4-Dichloro-2-butene	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
Isobutyl alcohol	200 R	ug/l	200		200 R	ug/l	200		200 R	ug/l	200		200 R	ug/l	200
1,1,1,2-Tetrachloroethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,2-Dibromo-3-chloropropene	10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10		10 U	ug/l	10
1,2-Dibromoethane	5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5		5 U	ug/l	5
1,4-Dioxane	200 R	ug/l	200		200 R	ug/l	200		200 R	ug/l	200		200 R	ug/l	200

MAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

M7505007

RFA001A

26M001S

12-JUL-94

M7515002

RFA001A

26M003S

13-JUL-94

M7492007

RFA001A

26M004S

10-JUL-94

VALUE

QUAL

UNITS

DL

VALUE

QUAL

UNITS

DL

VALUE

QUAL

UNITS

DL

GROUND WATER QUALITY

Alkalinity as CaCO3

Ammonia-N

Chloride

Hardness as CaCO3

Nitrate/Nitrite-N

Oil and Grease

Phosphorus-P, Total

Sulfate

Sulfide

Total Dissolved Solids

Total Kjeldahl Nitrogen

Total Organic Carbon

ug/l

950000

6200

3470000

1530000

130

5000 U

2240

181000

3500

6310000

9700

20600

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

780000

13700

6740000

2030000

100 U

5800

1730

1000 U

1000

10300000

16300

28200

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

100

100

100 U

5000 U

960

87200

18500

9810000

9700

20000

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

100

5000

COLOR

Color

APHA

units

70

units

APHA

units

50

units

APHA

units

50

units

APHA

units

pH

units

6.9

units

7

units

10.4

units

TOTAL PETROLEUM HYDROCARBONS

mg/l

-

mg/l

-

mg/l

-

mg/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

R8811004

Site

READATA

Locator

26MAD04S

Collect Date:

26-SEP-94

VALUE

QUAL UNITS

DL

ug/l

Antimony	ug/l
Arsenic	ug/l
Barium	ug/l
Beryllium	ug/l
Cadmium	ug/l
Calcium	ug/l
Chromium	ug/l
Cobalt	ug/l
Copper	ug/l
Cyanide	ug/l
Iron	ug/l
Lead	ug/l
Magnesium	ug/l
Manganese	ug/l
Mercury	ug/l
Nickel	ug/l
Selenium	ug/l
Silver	ug/l
Sodium	ug/l
Thallium	ug/l
Tin	ug/l
Vanadium	ug/l
Zinc	ug/l

2.7 UJ

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



NAVSIA MATPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7504013  
RFA DATA  
26MAD02S  
12-JUL-94

R8820016  
RFA DATA  
26MAD02S  
28-SEP-94

M7514002  
RFA DATA  
26MAD03S  
13-JUL-94

M7491009  
RFA DATA  
26MAD04S  
10-JUL-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
2.2 U		ug/l	2.2			ug/l		5.2 U		ug/l	22.3 U			ug/l	
.9 U		ug/l	.9			ug/l		.9 U		ug/l	.9 U			ug/l	
18.3 J		ug/l	.18			ug/l		15 J		ug/l	23.6 J			ug/l	
.18 U		ug/l	.18			ug/l		.18 U		ug/l	.18 U			ug/l	
3 U		ug/l	3			ug/l		3 U		ug/l	3 U			ug/l	
183000		ug/l	2.34			ug/l		113000 J		ug/l	224000			ug/l	
2.34 U		ug/l	2.34			ug/l		2 U		ug/l	2.09 U			ug/l	
2.7 U		ug/l	2.7			ug/l		2.7 U		ug/l	2.7 U			ug/l	
4.29 U		ug/l	4.29			ug/l		5.4 U		ug/l	4 U			ug/l	
		ug/l				ug/l		.81 U		ug/l	.81 J			ug/l	
		ug/l				ug/l		487		ug/l	44 J			ug/l	
		ug/l				ug/l		2.2 J		ug/l	2.9 U			ug/l	
1320 J		ug/l	2.2			ug/l		353000		ug/l	330000			ug/l	
2.2 U		ug/l				ug/l		310 J		ug/l	215			ug/l	
154000		ug/l				ug/l		.08 U		ug/l	.08 U			ug/l	
313 J		ug/l	.08			ug/l		7.3 U		ug/l	7.3 U			ug/l	
.08 U		ug/l	.08			ug/l		13.2 U		ug/l	13.2 U			ug/l	
7.3 U		ug/l	7.3			ug/l		2.1 U		ug/l	2.3 U			ug/l	
13.2 U		ug/l	2.1			ug/l		326000		ug/l	3240000			ug/l	
2.1 U		ug/l				ug/l		1.3 U		ug/l	1.3 U			ug/l	
1280000 J		ug/l	1.3			ug/l		9.4 U		ug/l	9.4 U			ug/l	
1.3 U		ug/l	1.3			ug/l		1.7 U		ug/l	1.7 U			ug/l	
9.4 U		ug/l	9.4			ug/l		5 J		ug/l	4.2 U			ug/l	
1.7 U		ug/l	1.7			ug/l				ug/l				ug/l	
7.3 U		ug/l	7.3			ug/l				ug/l				ug/l	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

Lab Sample Number:  
Site  
locator  
Collect Date:

VALUE	M7504011
	RFADATA
	26MM001S
	12-JUL-94
	QUAL UNITS

DL	VALUE
	R8820014
	RFADATA
	26MM001S
	28-SEP-94
	QUAL UNIT

VALUE	M7504012
	#FADATA
	26MM001SD
	12-JUL-94
	DUAL UNIT

VALUE	QUAL	UNITS	DL
-------	------	-------	----

## AKG WATER METALS

BKG WATER METALS					
	ug/l		ug/l		ug/l
Antimony	2.2 U	ug/l	2.2	-	ug/l
Arsenic	1.1 J	ug/l	-	-	ug/l
Berium	25.7 J	ug/l	-	-	ug/l
Beryllium	.18 U	ug/l	.18	-	ug/l
Cadmium	3 U	ug/l	3	-	ug/l
Calcium	266000	ug/l	-	-	ug/l
Chromium	2.34 U	ug/l	2.34	-	ug/l
Cobalt	2.7 U	ug/l	2.7	-	ug/l
Copper	4.29 U	ug/l	4.29	-	ug/l
Cyanide	-	ug/l	-	2.7 UJ	ug/l
Iron	89.8 J	ug/l	-	-	ug/l
Lead	4.7 U	ug/l	4.7	-	ug/l
Magnesium	186000	ug/l	-	-	ug/l
Manganese	163 J	ug/l	-	-	ug/l
Mercury	.08 U	ug/l	.08	-	ug/l
Nickel	7.3 U	ug/l	7.3	-	ug/l
Selenium	13.2 UJ	ug/l	-	-	ug/l
Silver	2.1 U	ug/l	2.1	-	ug/l
Sodium	1740000 J	ug/l	-	-	ug/l
Thallium	1.4 J	ug/l	9.4	-	ug/l
Tin	9.4 U	ug/l	1.7	-	ug/l
Vanadium	1.7 U	ug/l	7.3	-	ug/l
Zinc	7.3 U	ug/l	-	-	ug/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number: M7490009  
Site: RFA DATA  
Locator: 26MAD04S  
Collect Date: 10-JUL-94  
VALUE QUAL UNITS DL

PESTICIDES/PCBs (SM-946, S080)

	ug/l		
alpha-BHC	.02 U	ug/l	.02
beta-BHC	.04 U	ug/l	.04
delta-BHC	.02 U	ug/l	.02
gamma-BHC (lindane)	.02 U	ug/l	.02
Heptachlor	.02 U	ug/l	.02
Aldrin	.02 U	ug/l	.02
Heptachlor epoxide	.02 U	ug/l	.02
Endosulfan I	.02 U	ug/l	.02
Dieldrin	.02 U	ug/l	.02
4,4-DDE	.04 U	ug/l	.04
Endrin	.04 U	ug/l	.04
Endosulfan II	.04 U	ug/l	.04
4,4-DDD	.04 U	ug/l	.04
Endosulfan sulfate	.04 U	ug/l	.04
4,4-DDT	.04 U	ug/l	.04
Methoxychlor	.08 U	ug/l	.08
Endrin aldehyde	.04 U	ug/l	.04
Endrin ketone	.04 U	ug/l	.04
Chlordane	.2 U	ug/l	.2
Chlorobenzilate	.5 U	ug/l	.5
Diallate	.1 U	ug/l	.1
Toxaphene	.02 U	ug/l	.02
Isodrin	.1 U	ug/l	.1
Kepon	.1 U	ug/l	.1
Aracior-1016	.2 U	ug/l	.2
Aracior-1221	.2 U	ug/l	.2
Aracior-1232	.2 U	ug/l	.2
Aracior-1242	.1 U	ug/l	.1
Aracior-1248	.1 U	ug/l	.1
Aracior-1254	.5 U	ug/l	.5
Aracior-1260	.5 U	ug/l	.5

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

MAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number: M7503009 RFA DATA M7503010 RFA DATA M7503011 RFA DATA M7513002 RFA DATA  
 Site 26M0015 26M001SD 26M002S 26M003S  
 Locator 12-JUL-94 12-JUL-94 12-JUL-94 13-JUL-94  
 Collect Date: VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL

PESTICIDES/PCBs (SU-B46, 8080)

ug/l	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
alpha-BHC	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
beta-BHC	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
delta-BHC	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
gamma-BHC (lindane)	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Heptachlor	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Aldrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Heptachlor epoxide	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Endosulfan I	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Dieldrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
4,4-DDE	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endrin	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endosulfan II	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
4,4-DHD	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endosulfan sulfate	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
4,4-DDT	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Methoxychlor	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endrin aldehyde	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endrin ketone	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Chlordane	.2 U	ug/l		.2	.2 U	ug/l		.2	.2 U	ug/l		.2	.2 U	ug/l		.2
Chlorobenzilate	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5
Diallate	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Toxaphene	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Isodrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Kepon	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Atoclor-1016	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Atoclor-1221	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2
Atoclor-1232	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2
Atoclor-1242	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Atoclor-1248	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Atoclor-1254	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5
Atoclor-1260	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MATPORT  
RFA Ground Water Data

Lab Sample Number: 1  
Site: 264W004S  
Locator: 10-JUL-94  
Collect Date:

VALUE QUAL UNITS DL

o-Toluidine	10 U	ug/l	10
Hexachloropropene	50 U	ug/l	50
p-Phenylenediamine	500 U	ug/l	500
Safrrole	50 U	ug/l	50
Isoafrrole	50 U	ug/l	50
1,4-Naphthoquinone	1000 U	ug/l	10
1,5-Dinitrobenzene	10 U	ug/l	10
5-Nitro-o-Toluidine	10 U	ug/l	10
1,3,5-Trinitrobenzene	10 U	ug/l	10
4-Nitroquinoline-1-oxide	500 U	ug/l	10
Methpyrillene	50 U	ug/l	10
3,3'-Dimethylbenzidine	10 U	ug/l	10
Hexachlorophene	500 R	ug/l	50
Aramite	50 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10
3- & 4-Methylphenol (2)	10 U	ug/l	10
4-Methylphenol	-	ug/l	10
Diphenylamine	50 U	ug/l	50
Hexachloropropene	10 U	ug/l	10
2-Acetylaminofluorene	10 U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

M7490009

RFADATA

26440045

10-JUL-94

VALUE QUAL UNITS DL

4-Chlorophenyl-phenyl ether	10 U	ug/l	10
Fluorene	10 U	ug/l	10
4-Nitroaniline	50 U	ug/l	50
4,6-Dinitro-2-methylphenol	50 U	ug/l	50
N-Nitrosodiphenylamine (*)	10 U	ug/l	10
1,2-Diphenylhydrazine	10 U	ug/l	10
4-Bromophenyl-phenyl ether	10 U	ug/l	10
Hexachlorobenzene	50 U	ug/l	50
Pentachlorophenol	10 U	ug/l	10
Phenanthrene	10 U	ug/l	10
Anthracene	10 U	ug/l	10
Di-n-Butylphthalate	10 U	ug/l	10
Fluoranthene	10 U	ug/l	10
Pyrene	10 U	ug/l	10
Butylbenzylphthalate	20 U	ug/l	20
3,3'-Dichlorobenzidine	10 U	ug/l	10
Benzo(a)anthracene	10 U	ug/l	10
Chrysene	10 U	ug/l	10
Di(2-Ethylhexyl)phthalate	10 U	ug/l	10
Di-n-octylphthalate	10 U	ug/l	10
Benzo(b)fluoranthene	10 U	ug/l	10
Benzo(k)fluoranthene	10 U	ug/l	10
Benzo(a)pyrene	10 U	ug/l	10
Indeno(1,2,3-cd)pyrene	10 U	ug/l	10
Dibenz(a,h)anthracene	10 U	ug/l	10
Benzo(g,h,i)perylene	10 U	ug/l	10
2-Picoline	10 U	ug/l	10
Methyl methanesulfonate	10 U	ug/l	10
Ethyl methanesulfonate	10 U	ug/l	10
Acetophenone	10 U	ug/l	10
N-Nitrosopiperidine	10 U	ug/l	10
Phenyl-tert-butylamine	50 U	ug/l	50
2,6-Dichlorophenol	10 U	ug/l	10
N-Nitroso-di-n-butylamine	10 U	ug/l	10
N-Nitrosodiphenylamine	10 U	ug/l	10
N-Nitrosopyrrolidine	10 U	ug/l	10
Benidine	50 U	ug/l	50
1,2,4,5-Tetrachlorobenzene	50 U	ug/l	50
Pentachlorobenzene	50 U	ug/l	50
1-Naphthylamine	50 U	ug/l	50
2-Naphthylamine	50 U	ug/l	50
2,3,4,6-Tetrachlorophenol	10 U	ug/l	10
Phenacetin	10 U	ug/l	10
4-Aminobiphenyl	50 U	ug/l	50
Pentachloronitrobenzene	10 U	ug/l	10
Proranalde	10 U	ug/l	10
p-(Dimethylamino)azobenzene	10 U	ug/l	10
7,12-Dimethylbenz(A)Anthracene	10 U	ug/l	10
3-Methylcholanthrene	10 U	ug/l	10
Pyridine	50 U	ug/l	50
N-Nitrosomethylethylamine	10 U	ug/l	10
N-Nitrosomorpholine	10 U	ug/l	10



NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

M7490009

Site

RFA DATA

Locator

26MAD04S

Collect Date:

10-JUL-96

VALUE QUAL UNITS DL

BKG SVOC (8270-24)	ug/l		
N-Mitroendimethylamine	10 U	ug/l	10
Phenol	10 U	ug/l	10
Aniline	10 U	ug/l	10
bis (2-Chloroethyl) ether	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10
Benzyl Alcohol	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10
bis(2-Chloroisopropyl) ether	10 U	ug/l	10
N-Mitroso-di-n-propylamine	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10
Isophorone	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10
Benzoic acid	50 U	ug/l	50
bis(2-Chloroethoxy)methane	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10
Naphthalene	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10
Dimethylphthalate	50 U	ug/l	50
2,4,5-Trichlorophenol	10 U	ug/l	10
2-Chloronaphthalene	50 U	ug/l	50
2-Nitroaniline	50 U	ug/l	50
Acenaphthylene	10 U	ug/l	10
2,6-Dinitrotoluene	50 U	ug/l	50
3-Nitroaniline	10 U	ug/l	10
Acenaphthene	50 U	ug/l	50
2,4-Dinitrophenol	50 U	ug/l	50
4-Nitrophenol	10 U	ug/l	10
Dibenzofuran	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

Methylcyclopentadiene  
3,3'-dimethylbenzidine  
Hexachlorocyclopentadiene  
Aroclor  
2-Chlorophenol  
3,4-Dichlorophenol (2)  
4-Methylphenol  
Diphenylamine  
Hexachlorocyclopentadiene  
2-Acetylaminofluorene

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
50 UJ	UJ	ug/l		50 U	U	ug/l		50 UJ	UJ	ug/l		50 U	U	ug/l	
10 UJ	UJ	ug/l		10 U	U	ug/l		10 UJ	UJ	ug/l		10 U	U	ug/l	
500 UJ	UJ	ug/l		500 U	U	ug/l		500 UJ	UJ	ug/l		500 R	R	ug/l	
50 UJ	UJ	ug/l		50 U	U	ug/l		50 UJ	UJ	ug/l		50 U	U	ug/l	
10 U	U	ug/l		10 U	U	ug/l		10 U	U	ug/l		10 U	U	ug/l	
10 U	U	ug/l		10 U	U	ug/l		10 U	U	ug/l		10 U	U	ug/l	
-		ug/l		-		ug/l		-		ug/l		-		ug/l	
50 UJ	UJ	ug/l		50 U	U	ug/l		50 UJ	UJ	ug/l		50 U	U	ug/l	
10 UJ	UJ	ug/l		10 U	U	ug/l		10 UJ	UJ	ug/l		10 U	U	ug/l	
10 UJ	UJ	ug/l		10 U	U	ug/l		10 UJ	UJ	ug/l		10 U	U	ug/l	
10				10				10				10			

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SIOC (B270) ANALYTICAL RUN.



# NAVSTA MATPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Di-n-Butylphthalate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Fluoranthene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Pyrene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Butylbenzylphthalate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
3,3'-Dichlorobenzidine	20 U	U	ug/l	20	20 U	U	ug/l	20	20 U	U	ug/l	20	20 U	U	ug/l	20
Benzo(a)anthracene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Chrysene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Bis(2-Ethylhexyl)phthalate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Di-n-octylphthalate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Benzo(b)fluoranthene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Benzo(k)fluoranthene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Benzo(a)pyrene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Indeno(1,2,3-cd)pyrene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Dibenz(a,h)anthracene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Benzo(g,h,i)perylene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
2-Picoline	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Methyl methanesulfonate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Ethyl methanesulfonate	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Acetophenone	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitrosopiperidine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Phenyl-tert-butylamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
2,6-Dichlorophenol	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitroso-di-n-butylamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitrosodiethylamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitrosopyrrolidine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Benidine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
1,2,4,5-Tetrachlorobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Pentachlorobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
1-Naphthylamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
2,3,4,6-Tetrachlorophenol	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Phenacetin	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
4-Aminobiphenyl	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Pentachloronitrobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Prenanide	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
P-(Dimethylamino)azobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
P-12-Dimethylbenz(A)Anthracene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
3-Methylcholanthrene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Pyridine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitrosamethylamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
N-Nitrosamorpholine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
o-Toluidine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Hexachloropropene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
p-Phenylendiamine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Safrole	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Isosafrole	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
1,4-Naphthoquinone	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
1,3-Dinitrobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
5-Nitro-o-toluidine	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
1,3,5-Trinitrobenzene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
4-Nitroquinoline-1-oxide	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10

Lab Sample Number:  
Site  
Locator  
Collect Date:

[illegible]

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

M7490009  
RFADATA  
26MM004S  
10-JUL-94

QUAL UNITS

DL

1,2-Dichlorobenzene	10 U	ug/l	10
2-Chloroethylvinyl ether	10 UJ	ug/l	
Ethyl methacrylate	5 U	ug/l	5
1,2,3-Trichloropropene	5 U	ug/l	5
trans-1,4-Dichloro-2-butene	5 U	ug/l	5
Isobutyl alcohol	200 R	ug/l	
1,1,1,2-Tetrachloroethane	5 U	ug/l	5
1,2-Dibromo-3-chloropropene	10 U	ug/l	10
1,2-Dibromoethane	5 U	ug/l	5
1,4-Dioxane	200 R	ug/l	
3-Chloropropene	5 UJ	ug/l	
Acetonitrile	100 UJ	ug/l	
Chloroprene	5 U	ug/l	5
Methacrylonitrile	10 U	ug/l	10
Methyl methacrylate	10 UJ	ug/l	
Pentachloroethane	100 U	ug/l	
Propionitrile	10 UJ	ug/l	
Vinyl acetate	10 UJ	ug/l	100

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUALIFICATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE

THE GENERATED FROM THE GWDC (B270) ANALYTICAL RUN.

NAVSIA NAVPORT  
RFA Ground Water Data

Lab Sample Number:

M7490009

Site

RFA DATA

Locator

264M004S

Collect Date:

10-JUL-94

VALUE QUAL UNITS DL

BKG VOCs (0240-11)			
Chloromethane	10 U	ug/l	10
Bromomethane	10 U	ug/l	10
Vinyl chloride	10 U	ug/l	10
Chloroethane	10 U	ug/l	10
Methylene chloride	5 U	ug/l	5
Acetone	10 U	ug/l	10
Carbon disulfide	5 U	ug/l	5
1,1-Dichloroethane	5 U	ug/l	5
1,1-Dichloroethene	5 U	ug/l	5
1,2-Dichloroethane (total)	5 U	ug/l	5
Chloroform	5 U	ug/l	5
1,2-Dichloroethane	5 U	ug/l	5
2-Butanone	10 U	ug/l	10
1,1,1-Trichloroethane	5 U	ug/l	5
Carbon tetrachloride	5 U	ug/l	5
Bromodichloromethane	5 U	ug/l	5
1,2-Dichloropropane	5 U	ug/l	5
cis-1,3-Dichloropropene	5 U	ug/l	5
Trichloroethene	5 U	ug/l	5
Dibromochloromethane	5 U	ug/l	5
1,1,2-Trichloroethane	5 U	ug/l	5
Benzene	5 U	ug/l	5
trans-1,3-Dichloropropene	5 U	ug/l	5
Bromoform	10 U	ug/l	10
4-Methyl-2-pentanone	10 U	ug/l	10
2-Hexanone	5 U	ug/l	5
Tetrachloroethene	5 U	ug/l	5
1,1,2,2-Tetrachloroethane	5 U	ug/l	5
Toluene	5 U	ug/l	5
Chlorobenzene	5 U	ug/l	5
Ethylbenzene	5 U	ug/l	5
Styrene	5 U	ug/l	5
Xylenes (total)	5 U	ug/l	5
Trichlorofluoromethane	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10
Acrolein	100 U	ug/l	100
Iodoethane	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10
Acrylonitrile	100 U	ug/l	100
Dibromomethane	5 U	ug/l	5

# NAVSIA MATPORT RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl Methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5
100 UJ	ug/l	100	100 UJ	ug/l	100	100 UJ	ug/l	100	100 UJ	ug/l	100	100 UJ	ug/l	100	100
5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	5
10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10
100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100 U	ug/l	100	100
10 UJ	ug/l	10	10 UJ	ug/l	10	10 UJ	ug/l	10	10 UJ	ug/l	10	10 UJ	ug/l	10	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-DICHLOROETHANE, 1,3-DICHLOROETHANE, 1,4-DICHLOROETHANE WERE GENERATED FROM THE SIOC (R270) ANALYTICAL RUN.



Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7503009				M7503010				M7503011			
RFPDATA				RFPDATA				RFPDATA			
26MM001S				26MM001SD				26MM002S			
12-JUL-94				12-JUL-94				12-JUL-94			
M7513002				M7513003				M7513004			
RFPDATA				RFPDATA				RFPDATA			
26MM003S				26MM003S				26MM003S			
13-JUL-94				13-JUL-94				13-JUL-94			

10

[illegible][illegible][illegible][illegible]

NAVSIA MAYPORT  
RFA Ground Water Date

Lab Sample Number:

Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
W7692006	RFA DATA	08M008S	09-JUL-94	R8626003	RFA DATA	08M009S	26-AUG-94	R8708001	RFA DATA	08M010S	09-SEP-94

GROUND WATER QUALITY

mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
224	3390	238				
.3 U	7.6	.3 U				.3
906	3790	29.6				
224	7180	300				
.52	.38	3.69				
5 U	5 U	5 U				5
.21	28	.58				
167	100 U	54.5				
1 U	15.1	1 U				
1980	14500	387				1
.3 U	15.2	1.3				
4.6	3990	6				

COLOR

APHA	APHA	APHA	APHA
25	70	15	

pH

units	units	units	units
7	6.2	7.47	

TOTAL PETROLEUM HYDROCARBONS

mg/l	mg/l	mg/l	mg/l
-	-	-	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-? 1,3-? AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
M7491005	RFA DATA	08MMD085	09-JUL-94	R8628003	RFA DATA	08MMD095	26-AUG-94	R8710001	RFA DATA	08MMD105	09-SEP-94	R8710002	RFA DATA	08MMD105D	09-SEP-94

8KG WATER METALS															
	ug/l														
Antimony	2.2 U	ug/l	2.2	50 U	ug/l	5 U	ug/l	5	5 U	ug/l	5	5 U	ug/l	5	
Arsenic	5.6 J	ug/l		6 J	ug/l	1.8 J	ug/l		1.1 J	ug/l		1.1 J	ug/l		
Barium	8.4 J	ug/l		112 J	ug/l	6.2 J	ug/l		6.3 J	ug/l		6.3 J	ug/l		
Beryllium	18 U	ug/l	.18	3 U	ug/l	.3 U	ug/l	.3	.3 U	ug/l	.3	.3 U	ug/l	.3	
Cadmium	3 U	ug/l	.3	1 U	ug/l	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	
Calcium	33800	ug/l		1830000	ug/l	79600	ug/l		77100	ug/l		77100	ug/l		
Chromium	2.09 U	ug/l	2.09	2.6 U	ug/l	2.6 U	ug/l	2.6	2.6 U	ug/l	2.6	2.6 U	ug/l	2.6	
Cobalt	2.7 U	ug/l	2.7	3.1 U	ug/l	3.1 U	ug/l	3.1	3.1 U	ug/l	3.1	3.1 U	ug/l	3.1	
Copper	4 U	ug/l	4	.9 U	ug/l	.9 U	ug/l	.9	.9 U	ug/l	.9	.9 U	ug/l	.9	
Cyanide	.81 U	ug/l	.81	2.7 U	ug/l	2.7 U	ug/l	2.7	2.7 U	ug/l	2.7	2.7 U	ug/l	2.7	
Iron	88 J	ug/l		4820	ug/l	9.1 U	ug/l	9.1	9.1 U	ug/l	9.1	9.1 U	ug/l	9.1	
Lead	.97 U	ug/l	.97	6 U	ug/l	.6 U	ug/l	.6	.6 U	ug/l	.6	.6 U	ug/l	.6	
Magnesium	28100	ug/l		401000	ug/l	17100	ug/l		16500	ug/l		16500	ug/l		
Manganese	12 J	ug/l		2260	ug/l	21.5	ug/l		19.2	ug/l		19.2	ug/l		
Mercury	.08 U	ug/l	.08	.5 U	ug/l	.1 U	ug/l	.1	.1 U	ug/l	.1	.1 U	ug/l	.1	
Nickel	7.3 U	ug/l	7.3	5.9 U	ug/l	5.9 U	ug/l	5.9	5.9 U	ug/l	5.9	5.9 U	ug/l	5.9	
Selenium	1.55 U	ug/l		30 U	ug/l	1.9 J	ug/l		1.2 J	ug/l		1.2 J	ug/l		
Silver	2.3 U	ug/l	2.3	2.1 U	ug/l	2.1 U	ug/l	2.1	2.1 U	ug/l	2.1	2.1 U	ug/l	2.1	
Sodium	675000	ug/l		1810000	ug/l	24100	ug/l		23100	ug/l		23100	ug/l		
Thallium	1.3 U	ug/l		6 U	ug/l	.6 U	ug/l	.6	.6 U	ug/l	.6	.6 U	ug/l	.6	
Tin	9.4 U	ug/l	9.4	8 U	ug/l	8 U	ug/l	8	8 U	ug/l	8	8 U	ug/l	8	
Vanadium	1.7 U	ug/l	1.7	8.3 J	ug/l	3 J	ug/l		2 J	ug/l		2 J	ug/l		
Zinc	5.8 U	ug/l	5.8	16.5 J	ug/l	2.9 U	ug/l	2.9	2.9 U	ug/l	2.9	2.9 U	ug/l	2.9	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



Lab Sample Number:  
Site  
Locator  
Collect Date:

R0730003  
RFADATA  
49SD016  
12-SEP-94  
QUAL UNITS DL

[illegible]

U = NOT DETECTED R = RESULT IS REJECTED  
UJ = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MATPORT  
RFA Sediment Data

Lab Sample Number:

Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
2.3 J		mg/kg		1.6 J		mg/kg		2 J		mg/kg		1.7 J		mg/kg	
4.5 J		mg/kg		6.2 J		mg/kg		10.8		mg/kg		6.9 J		mg/kg	
17 J		mg/kg		18 J		mg/kg		19.2 J		mg/kg		18.1 J		mg/kg	
.65 J		mg/kg		.93 J		mg/kg		1.1 J		mg/kg		.83 J		mg/kg	
2.4 U		mg/kg	2.4	2 U		mg/kg	2	2.3 U		mg/kg	2.3	2.3 U		mg/kg	2.3
23.4		mg/kg		28.3		mg/kg		31.8		mg/kg		24.9		mg/kg	
3.1 J		mg/kg		3.2 J		mg/kg		6.9 J		mg/kg		3.6 J		mg/kg	
11.9 J		mg/kg		7.4 J		mg/kg		45.7		mg/kg		11.9 J		mg/kg	
12 J		mg/kg		.11 U		mg/kg	.11	.12 U		mg/kg	.12	.12 U		mg/kg	.12
22.9 J		mg/kg		14.2 J		mg/kg		21.9 J		mg/kg		22.9 J		mg/kg	
.23 U		mg/kg	.23	.83		mg/kg		.27 U		mg/kg	.27	.26 U		mg/kg	.26
56		mg/kg		4.9 U		mg/kg	4.9	70.6		mg/kg		7.8 J		mg/kg	
1 U		mg/kg	1	.88		mg/kg	.88	1 U		mg/kg	1	1 U		mg/kg	1
1.6 U		mg/kg	1.6	1.4 U		mg/kg	1.4	2.4 J		mg/kg		1.6 U		mg/kg	
1 U		mg/kg	1	.87 U		mg/kg	.87	1 U		mg/kg	1	.98 U		mg/kg	
6.8 J		mg/kg		9.2 J		mg/kg		10.9 J		mg/kg		10 J		mg/kg	
23 J		mg/kg		29.6 J		mg/kg		37.9 J		mg/kg		26.6 J		mg/kg	
94.1		mg/kg		42.4		mg/kg		625		mg/kg		57.5		mg/kg	

MG SOILS METALS

Antimony  
Arsenic  
Barium  
Beryllium  
Cadmium  
Chromium  
Cobalt  
Copper  
Cyanide  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Tin  
Vanadium  
Zinc

mg/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:

M7645007

Site

RFADATA

Locator

49SD009

Collect Date:

02-AUG-94

M7645006

RFADATA

49SD010

02-AUG-94

M7645009

RFADATA

49SD011

02-AUG-94

M7645008

RFADATA

49SD012

02-AUG-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
-------	------	-------	----	-------	------	-------	----	-------	------	-------	----	-------	------	-------	----

TOC	mg/kg	44500		mg/kg	31200		mg/kg	55500		mg/kg	53200		mg/kg
Total Organic Carbon													

TOTAL PETROLEUM HYDROCARBONS	mg/kg	-		mg/kg	-		mg/kg	-		mg/kg	-		mg/kg
Total petroleum hydrocarbon													

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Sediment Data

Lab Sample Number:

Site

Locator

Collect Date:

R8730001

RFADATA

49SD017

12-SEP-94

R8730002

RFADATA

49SD017D

12-SEP-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

BKG. SOILS METALS

	mg/kg								
Antimony	2.6 U	mg/kg	2.6	2.5 U	mg/kg	2.5			
Arsenic	5.3 J	mg/kg		4.2 J	mg/kg				
Berilium	17 J	mg/kg		14.3 J	mg/kg				
Beryllium	.74 J	mg/kg		.89 J	mg/kg				
Cadmium	.52 U	mg/kg	.52	.51 U	mg/kg	.51			
Chromium	31.5 U	mg/kg		33.3 U	mg/kg				
Cobalt	1.6 U	mg/kg	1.6	1.6 U	mg/kg	1.6			
Copper	2.8 U	mg/kg		37.7	mg/kg				
Cyanide	.42 J	mg/kg		.34 U	mg/kg				
Lead	10.9 J	mg/kg		10.3	mg/kg				
Mercury	.07 J	mg/kg		.07 J	mg/kg				
Nickel	6 U	mg/kg		73.2	mg/kg				
Selenium	.55 J	mg/kg		.64 J	mg/kg				
Silver	1.1 U	mg/kg	1.1	1.1 U	mg/kg	1.1			
Thallium	.31 J	mg/kg		.3 U	mg/kg	.3			
Tin	6.8 J	mg/kg		4 U	mg/kg				
Vanadium	36.3	mg/kg		40.3	mg/kg				
Zinc	15.9	mg/kg		14.7	mg/kg				

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSIA MAYPORT RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

ug/kg

BKG VOCs (B240+11)															
Chloromethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Bromomethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Vinyl chloride	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Chloroethene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Methylene chloride	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Acetone	11 U	ug/kg	11	8 U	ug/kg	5	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Carbon disulfide	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethene (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chloroform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethane	5 U	ug/kg	5	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
2-Butene	11 U	ug/kg	11	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,1-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Carbon tetrachloride	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromochloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Dibromochloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Benzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
trans-1,3-Dichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromoform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
4-Methyl-2-pentanone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
2-Hexanone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Tetrachloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2,2-Tetrachloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Toluene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Ethylbenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Styrene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Xylenes (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichlorofluoromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,3-Dichlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Acrolein	110 U	ug/kg	110	100 U	ug/kg	100	100 U	ug/kg	100	110 U	ug/kg	110	110 U	ug/kg	110
Iodomethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
1,4-Dichlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Acrylonitrile	110 U	ug/kg	110	100 U	ug/kg	100	100 U	ug/kg	100	110 U	ug/kg	110	110 U	ug/kg	110
Dibromomethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
2-Chloroethylvinylether	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
Ethyl methacrylate	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
trans-1,4-Dichloro-2-butene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Isobutyl alcohol	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5
1,1,1,2-Tetrachloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11
1,2-Dibromo-3-chloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dibromomethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,4-Dioxane	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5	210 R	ug/kg	5

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

R8665008

RFA DATA

56SS00401

01-SEP-96

VALUE QUAL UNITS DL

1,2-Dichlorobenzene	5 U	ug/kg	5
2-Chloroethylvinylether	10 U	ug/kg	10
Ethyl methacrylate	5 U	ug/kg	5
1,2,3-Trichloropropene	5 U	ug/kg	5
trans-1,4-Dichloro-2-butene	5 U	ug/kg	5
Isobutyl alcohol	210 R	ug/kg	5
1,1,1,2-Tetrachloroethane	5 U	ug/kg	5
1,2-Dibromo-3-chloropropene	10 U	ug/kg	10
1,2-Dibromoethane	5 U	ug/kg	5
1,4-Dioxane	210 R	ug/kg	5
3-Chloropropene	5 U	ug/kg	5
Acetonitrile	100 U	ug/kg	100
Chloroprene	5 U	ug/kg	5
Methacrylonitrile	10 U	ug/kg	10
Methyl methacrylate	10 U	ug/kg	10
Pentachloroethane	100 U	ug/kg	100
Propionitrile	10 U	ug/kg	10
Vinyl acetate	10 U	ug/kg	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B27D) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

R8665008

Site

RFA DATA

Locator

56SS00401

Collect Date:

01-SEP-94

VALUE

QUAL UNITS

DL

BKG VOCs (8240+11)	ug/kg		
Chloroethane	10 U	ug/kg	10
Bromoethane	10 U	ug/kg	10
Vinyl chloride	10 U	ug/kg	10
Chloroethene	10 U	ug/kg	10
Methylene chloride	5 U	ug/kg	5
Acetone	10 U	ug/kg	10
Carbon disulfide	5 U	ug/kg	5
1,1-Dichloroethane	5 U	ug/kg	5
1,1-Dichloroethene	5 U	ug/kg	5
1,2-Dichloroethane (total)	5 U	ug/kg	5
Chloroform	5 U	ug/kg	5
1,2-Dichloroethane	5 U	ug/kg	5
2-Butanone	10 U	ug/kg	10
1,1,1-Trichloroethane	5 U	ug/kg	5
Carbon tetrachloride	5 U	ug/kg	5
Bromodichloromethane	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5
cis-1,3-Dichloropropene	5 U	ug/kg	5
Trichloroethene	5 U	ug/kg	5
Dibromochloromethane	5 U	ug/kg	5
1,1,2-Trichloroethane	5 U	ug/kg	5
Benzene	5 U	ug/kg	5
trans-1,3-Dichloropropene	5 U	ug/kg	5
Bromoform	5 U	ug/kg	5
4-Methyl-2-pentanone	10 U	ug/kg	10
2-Heptanone	10 U	ug/kg	10
Tetrachloroethene	5 U	ug/kg	5
1,1,2,2-Tetrachloroethane	5 U	ug/kg	5
Toluene	5 U	ug/kg	5
Chlorobenzene	5 U	ug/kg	5
Ethylbenzene	5 U	ug/kg	5
Styrene	5 U	ug/kg	5
Xylenes (total)	5 U	ug/kg	5
Trichlorofluoromethane	700 U	ug/kg	700
1,3-Dichlorobenzene	100 U	ug/kg	100
Acrolein	10 U	ug/kg	10
Iodomethane	5 U	ug/kg	5
1,4-Dichlorobenzene	100 U	ug/kg	100
Acrylonitrile	5 U	ug/kg	5
Dibromomethane	5 U	ug/kg	5



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:

R8665001

R8665002

R8665004

R8665006

Site

RFADATA  
56SS00101

RFADATA  
56SS00101D

RFADATA  
56SS00201

RFADATA  
56SS00301

Collector:

01-SEP-94

01-SEP-94

01-SEP-94

01-SEP-94

VALUE

QUAL

UNITS

DL

VALUE

QUAL

UNITS

DL

VALUE

QUAL

UNITS

DL

Anthracene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

1-n-Butylphthalate

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Fluoranthene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Pyrene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Butylbenzylphthalate

1400 U

ug/kg

1400

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

1400

3,3'-Dichlorobenzidine

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Benzof(a)anthracene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Chrysene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

bis(2-Ethylhexyl)phthalate

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

01-n-octylphthalate

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Benzof(b)fluoranthene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Benzof(k)fluoranthene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Indeno(1,2,3-cd)pyrene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Dibenz(a,h)anthracene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Benzof(g,h,i)perylene

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

2-Picoline

3500 U

ug/kg

3500

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

3500

Methyl methanesulfonate

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Ethyl methanesulfonate

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Acetophenone

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

N-Nitrosopyrrolidine

3500 U

ug/kg

3500

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

Phenyl-tert-butylamine

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

700 U

ug/kg

700

2,6-Dichlorophenol

710 U

ug/kg

710

690 U

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

R8665001

RFA DATA

56SS00101

01-SEP-94

R8665002

RFA DATA

56SS00101

01-SEP-94

R8665004

RFA DATA

56SS00201

01-SEP-94

R8665006

RFA DATA

56SS00301

01-SEP-94

ug/kg

710 U

ug/kg

710

690 U

ug/kg

690

690 U

ug/kg

690

690 U

700 U

ug/kg

700

BKG SVOC (8270+24)  
N-Nitrosodimethylamine

Phenol

Aniline

bis (2-Chloroethyl) ether

1,3-dichlorobenzene

1,4-dichlorobenzene

Benzyl Alcohol

1,2-dichlorobenzene

2-Methylphenol

bis(2-Chloroisopropyl) ether

N-Nitroso-di-n-propylamine

Hexachloroethane

Nitrobenzene

Isophorone

2-Nitrophenol

2,4-dimethylphenol

Benzoic acid

bis(2-Chloroethoxy)methane

2,4-dichlorophenol

1,2,4-Trichlorobenzene

Naphthalene

4-Chloroaniline

Hexachlorobutadiene

4-Chloro-3-methylphenol

2-Methylnaphthalene

Hexachlorocyclopentadiene

2,4,6-Trichlorophenol

Dimethylphthalate

2,4,5-Trichlorophenol

2-Chloronaphthalene

2-Nitroaniline

Acenaphthylene

2,6-Dinitrotoluene

3-Nitroaniline

Acenaphthene

2,4-Dinitrophenol

4-Nitrophenol

Dibenzofuran

2,4-Dinitrotoluene

Diethylphthalate

4-Chlorophenyl-phenylether

Fluorene

4-Nitroaniline

4,6-Dinitro-2-methylphenol

N-Nitrosodiphenylamine (1)

1,2-Diphenylhydrazine

4-Bromophenyl-phenylether

Hexachlorobenzene

Pentachlorophenol

Phenanthrene

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

R8665008

Site

RFA DATA

Locator

56SS00401

Collect Date:

01-SEP-94

VALUE

QUAL UNITS

DL

8KG SVOC (8270+24)			
N-Nitrosodimethylaniline	ug/kg	700 U	700
Phenol		700 U	700
Aniline		700 U	700
bis (2-Chloroethyl) ether		700 U	700
1,3-Dichlorobenzene		700 U	700
1,4-Dichlorobenzene		700 U	700
Benzyl Alcohol		5 U	5
1,2-Dichlorobenzene		700 U	700
2-Methylphenol		5 U	5
bis(2-Chloroisopropyl) ether		700 U	700
N-Nitroso-di-n-propylamine		700 U	700
Hexachloroethane		700 U	700
Nitrobenzene		700 U	700
Isophorone		700 U	700
2-Nitrophenol		700 U	700
2,4-Dimethylphenol		3400 U	700
Benzoic acid		700 U	700
bis(2-Chloroethoxy)methane		700 U	700
2,4-Dichlorophenol		700 U	700
1,2,4-Trichlorobenzene		700 U	700
Naphthalene		700 U	700
4-Chloroaniline		700 U	700
Hexachlorobutadiene		700 U	700
4-Chloro-3-methylphenol		700 U	700
2-Methylnaphthalene		700 U	700
Hexachlorocyclopentadiene		700 U	700
2,4,6-Trichlorophenol		700 U	700
Dimethylphthalate		3400 U	700
2,4,5-Trichlorophenol		700 U	700
2-Chloronaphthalene		3400 U	700
2-Nitroaniline		700 U	700
Acenaphthylene		700 U	700
2,6-Dinitrotoluene		700 U	700
3-Nitroaniline		3400 U	700
Acenaphthene		700 U	700
2,4-Dinitrophenol		3400 U	700
4-Nitrophenol		700 U	700
Dibenzofuran		700 U	700
2,4-Dinitrotoluene		700 U	700
Diethylphthalate		700 U	700

MAVSTA MAYPORT  
RFA Surface Soil Date

Lab Sample Number:

Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrene	3500	UJ	ug/kg		3400	UJ	ug/kg		3400	UJ	ug/kg		3500	UJ	ug/kg	
3,3'-Dimethylbenzidine	710	U	ug/kg	710	690	U	ug/kg	690	690	U	ug/kg	690	700	U	ug/kg	700
Hexachlorophene	35000	R	ug/kg		34000	R	ug/kg		34000	R	ug/kg		35000	R	ug/kg	
Aramite	3500	UJ	ug/kg		3400	UJ	ug/kg		3400	UJ	ug/kg		3500	UJ	ug/kg	
2-Chlorophenol	710	U	ug/kg	710	690	U	ug/kg	690	690	U	ug/kg	690	700	U	ug/kg	700
3- & 4-Methylphenol (2)	710	U	ug/kg	710	690	U	ug/kg	690	690	U	ug/kg	690	700	U	ug/kg	700
4-Methylphenol	-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
Diphenylamine	3500	U	ug/kg	3500	3400	U	ug/kg	3400	3400	U	ug/kg	3400	3500	U	ug/kg	3500
Hexachloropropene	710	U	ug/kg	710	690	U	ug/kg	690	690	U	ug/kg	690	700	U	ug/kg	700
2-Acetylaminofluorene	710	U	ug/kg		690	U	ug/kg		690	U	ug/kg		700	U	ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

MAVIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

R8665008

Site

RFA DATA

Locator

56SS00401

Collect Date:

01-SEP-94

	VALUE	QUAL	UNITS	DL
o-Toluidine	700 U		ug/kg	700
Hexachloropropene	3400 U		ug/kg	3400
p-Phenylenediamine	3400 U		ug/kg	
Safrole	3400 U		ug/kg	3400
Isosafrole	69000 U		ug/kg	69000
1,4-Naphthoquinone	700 U		ug/kg	700
1,3-Dinitrobenzene	700 U		ug/kg	700
5-Nitro-o-toluidine	700 U		ug/kg	700
1,3,5-Trinitrobenzene	34000 U		ug/kg	34000
4-Nitroquinoline-1-oxide	700 U		ug/kg	
Methapyrene	3400 U		ug/kg	
3,3'-Dimethylbenzidine	700 U		ug/kg	700
Hexachlorophene	34000 R		ug/kg	
Arenite	3400 U		ug/kg	
2-Chlorophenol	700 U		ug/kg	700
3- & 4-Methylphenol (2)	700 U		ug/kg	700
4-Methylphenol	-		ug/kg	
Diphenylamine	-		ug/kg	
Hexachloropropene	3400 U		ug/kg	3400
2-Acetylanthracene	700 U		ug/kg	700

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8665008  
RFADATA  
56SS00401  
01-SEP-94

	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	700 U		ug/kg	700
Fluorene	700 U		ug/kg	700
4-Nitroaniline	3400 U		ug/kg	3400
4,6-Dinitro-2-methylphenol	3400 U		ug/kg	3400
N-Nitrosodiphenylamine (1)	700 U		ug/kg	700
1,2-Diphenylhydrazine	700 U		ug/kg	700
4-Bromophenyl-phenylether	700 U		ug/kg	700
Hexachlorobenzene	3400 U		ug/kg	3400
Pentachlorophenol	700 U		ug/kg	700
Phenanthrene	700 U		ug/kg	700
Anthracene	700 U		ug/kg	700
Di-n-Butylphthalate	700 U		ug/kg	700
Fluoranthene	700 U		ug/kg	700
Pyrene	700 U		ug/kg	700
Butylbenzylphthalate	1400 U		ug/kg	1400
3,3'-Dichlorobenzidine	700 U		ug/kg	700
Benzo(a)anthracene	700 U		ug/kg	700
Chrysene	700 U		ug/kg	700
bis(2-Ethylhexyl)phthalate	700 U		ug/kg	700
Di-n-octylphthalate	700 U		ug/kg	700
Benzo(b)fluoranthene	700 U		ug/kg	700
Benzo(k)fluoranthene	700 U		ug/kg	700
Benzo(a)pyrene	700 U		ug/kg	700
Indeno(1,2,3-cd)pyrene	700 U		ug/kg	700
Dibenz(e,h)anthracene	700 U		ug/kg	700
Benzo(g,h,i)perylene	3400 U		ug/kg	3400
2-Picoline	700 U		ug/kg	700
Methyl methanesulfonate	700 U		ug/kg	700
Ethyl methanesulfonate	700 U		ug/kg	700
Acetophenone	700 U		ug/kg	700
N-Nitrosopiperidine	3400 U		ug/kg	3400
Phenyl-tert-butylamine	700 U		ug/kg	700
2,6-Dichlorophenol	700 U		ug/kg	700
N-Nitroso-di-n-butylamine	700 U		ug/kg	700
N-Nitrosodiphenylamine	700 U		ug/kg	700
N-Nitrosopyrrolidine	700 U		ug/kg	700
Benidine	3400 U		ug/kg	3400
1,2,4,5-Tetrachlorobenzene	3400 U		ug/kg	3400
Pentachlorobenzene	3400 U		ug/kg	3400
1-Naphthylamine	3400 U		ug/kg	3400
2-Naphthylamine	3400 U		ug/kg	3400
2,3,6-Tetrachlorophenol	700 U		ug/kg	700
Phenacetin	700 U		ug/kg	700
4-Aminobiphenyl	3400 U		ug/kg	3400
Pentachloronitrobenzene	3400 U		ug/kg	3400
Protonamide	700 U		ug/kg	700
p-(Dimethylamino)azobenzene	700 U		ug/kg	700
7,12-Dimethylbenz(A)anthracene	700 U		ug/kg	700
3-Methylcholanthrene	700 U		ug/kg	700
Pyridine	3400 U		ug/kg	3400
N-Nitrosomethylethylamine	700 U		ug/kg	700
N-Nitrosamorpholine	700 U		ug/kg	700

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

#8665008

Site

RFA DATA

Locator

56SS00401

Collect Date:

01-SEP-94

VALUE QUAL UNITS DL

PESTICIDES/PCBs (SW-846, 8090) ug/kg

alpha-BHC	7 U	ug/kg	1.4
beta-BHC	1.4 U	ug/kg	1.4
delta-BHC	7 U	ug/kg	7
gamma-BHC (Lindane)	7 U	ug/kg	7
Heptachlor	7 U	ug/kg	7
Aldrin	7 U	ug/kg	7
Heptachlor epoxide	7 U	ug/kg	7
Endosulfan I	7 U	ug/kg	7
Dieldrin	7 U	ug/kg	7
4,4-DDD	1.5	ug/kg	1.4
Endrin	1.4 U	ug/kg	1.4
Endosulfan II	1.4 U	ug/kg	1.4
4,4-DDD	1.4 U	ug/kg	1.4
Endosulfan sulfate	1.4 U	ug/kg	1.4
4,4-DDT	2.8 U	ug/kg	2.8
Methoxychlor	1.4 U	ug/kg	1.4
Endrin aldehyde	1.4 U	ug/kg	1.4
Endrin ketone	1.4 U	ug/kg	1.4
Chlordane	7 U	ug/kg	7
Chlorobenzilate	21 U	ug/kg	21
Diallate	4.2 U	ug/kg	4.2
Toxaphene	34 U	ug/kg	34
Isodrin	7 U	ug/kg	7
Kepon	4.2 U	ug/kg	4.2
Arcochlor-1016	34 U	ug/kg	34
Arcochlor-1221	70 U	ug/kg	70
Arcochlor-1232	70 U	ug/kg	70
Arcochlor-1242	34 U	ug/kg	34
Arcochlor-1248	34 U	ug/kg	34
Arcochlor-1254	17 U	ug/kg	17
Arcochlor-1260	17 U	ug/kg	17

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

R8665001

RFADATA

56SS00101

01-SEP-94

R8665002

RFADATA

56SS001010

01-SEP-94

R8665004

RFADATA

56SS00201

01-SEP-94

R8665006

RFADATA

56SS00301

01-SEP-94

PESTICIDES/PCBs (SU-846,0080)

ug/kg

alpha-BHC	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
beta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
delta-BHC	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
gamma-BHC (lindane)	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Heptachlor	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Aldrin	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Heptachlor epoxide	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Endosulfan I	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Dieldrin	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
Endosulfan II	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
4,4-DDT	2.9 U	ug/kg	2.9	2.8 U	ug/kg	2.8	2.8 U	ug/kg	2.8	2.8 U	ug/kg	2.8
Methoxychlor	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
Endrin aldehyde	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
Endrin ketone	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3	1.4 U	ug/kg	1.4
Chlordane	7.2 U	ug/kg	7.2	7 U	ug/kg	7	6.9 U	ug/kg	6.9	7 U	ug/kg	7
Chlorobenzilate	21 U	ug/kg	21	21 U	ug/kg	21	21 U	ug/kg	21	21 U	ug/kg	21
Diallate	43 U	ug/kg	43	42 U	ug/kg	42	41 U	ug/kg	41	42 U	ug/kg	42
Toxaphene	35 U	ug/kg	35	34 U	ug/kg	34	34 U	ug/kg	34	35 U	ug/kg	35
Isochlor	.72 U	ug/kg	.72	.7 U	ug/kg	.7	.69 U	ug/kg	.69	.7 U	ug/kg	.7
Kepon	43 U	ug/kg	43	42 U	ug/kg	42	41 U	ug/kg	41	42 U	ug/kg	42
Arcochlor-1016	35 U	ug/kg	35	34 U	ug/kg	34	34 U	ug/kg	34	35 U	ug/kg	35
Arcochlor-1221	72 U	ug/kg	72	70 U	ug/kg	70	69 U	ug/kg	69	70 U	ug/kg	70
Arcochlor-1232	72 U	ug/kg	72	70 U	ug/kg	70	69 U	ug/kg	69	70 U	ug/kg	70
Arcochlor-1242	35 U	ug/kg	35	34 U	ug/kg	34	34 U	ug/kg	34	35 U	ug/kg	35
Arcochlor-1248	35 U	ug/kg	35	34 U	ug/kg	34	34 U	ug/kg	34	35 U	ug/kg	35
Arcochlor-1254	17 U	ug/kg	17	17 U	ug/kg	17	17 U	ug/kg	17	17 U	ug/kg	17
Arcochlor-1260	17 U	ug/kg	17	17 U	ug/kg	17	17 U	ug/kg	17	17 U	ug/kg	17

U = NOT DETECTED A = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



NAVSIA MATPORT  
RFA Surface Soil Data

Lab Sample Number: R8665008  
Site: RFA DATA  
Locator: 56SS00A01  
Collect Date: 01-SEP-94  
VALUE QUAL UNITS DL

BKG SOILS METALS

	mg/kg		mg/kg		mg/kg
Antimony	1 U		mg/kg		1
Arsenic	.73 J		mg/kg		
Barium	7.4 J		mg/kg		
Beryllium	.14 U		mg/kg		.14
Cadmium	.42 J		mg/kg		
Chromium	5 J		mg/kg		
Cobalt	.65 U		mg/kg		.65
Copper	6.3 U		mg/kg		
Cyanide	.14 U		mg/kg		.14
Lead	7 J		mg/kg		
Mercury	.03 U		mg/kg		.03
Nickel	2.3 J		mg/kg		
Selenium	.14 J		mg/kg		
Silver	.44 U		mg/kg		.44
Thallium	.15 J		mg/kg		
Tin	1.7 U		mg/kg		1.7
Vanadium	4.1 J		mg/kg		
Zinc	31.7 J		mg/kg		

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8665001	RFA DATA	565500101	01-SEP-94	R8665002	RFA DATA	565500101D	01-SEP-94	R8665004	RFA DATA	565500201	01-SEP-94	R8665006	RFA DATA	565500301	01-SEP-94

8KG SOILS METALS

mg/kg															
1.1 U	mg/kg	1.1	1 U	1	1 U	1	1.1 U	mg/kg	1.1						
.94 J	mg/kg	.94 J	mg/kg	.62 J	mg/kg	.62 J	.71 J	mg/kg	.71 J						
7.4 J	mg/kg	12.9 J	mg/kg	4.5 J	mg/kg	4.5 J	7 J	mg/kg	7 J						
.11 U	mg/kg	.16 U	mg/kg	.09 U	mg/kg	.09 U	.13 U	mg/kg	.13 U						
.39 J	mg/kg	2.1	mg/kg	.21 U	mg/kg	.21 U	.23 J	mg/kg	.23 J						
7.2 J	mg/kg	17.6 J	mg/kg	3.7 J	mg/kg	3.7 J	7.2 J	mg/kg	7.2 J						
.66 U	mg/kg	.65 U	mg/kg	.64 U	mg/kg	.64 U	.71 J	mg/kg	.71 J						
6.8 J	mg/kg	25.7 J	mg/kg	2.4 J	mg/kg	2.4 J	3.9 J	mg/kg	3.9 J						
.14 U	mg/kg	.14 U	mg/kg	.26 U	mg/kg	.26 U	.14 U	mg/kg	.14 U						
7.4 J	mg/kg	20.6 J	mg/kg	2.7 J	mg/kg	2.7 J	7.9 J	mg/kg	7.9 J						
.05 U	mg/kg	.04 U	mg/kg	.04 U	mg/kg	.04 U	.04 U	mg/kg	.04 U						
2.1 J	mg/kg	5.5 J	mg/kg	1.5 J	mg/kg	1.5 J	1.9 J	mg/kg	1.9 J						
.15 J	mg/kg	.12 U	mg/kg	.12 U	mg/kg	.12 U	.13 U	mg/kg	.13 U						
.45 U	mg/kg	.44 U	mg/kg	.43 U	mg/kg	.43 U	.44 U	mg/kg	.44 U						
.13 U	mg/kg	.12 U	mg/kg	.12 U	mg/kg	.12 U	.13 U	mg/kg	.13 U						
1.7 U	mg/kg	1.7 U	mg/kg	1.7 U	mg/kg	1.7 U	1.7 U	mg/kg	1.7 U						
4.7 J	mg/kg	4.8 J	mg/kg	2.9 J	mg/kg	2.9 J	4.8 J	mg/kg	4.8 J						
24 J	mg/kg	88.8 J	mg/kg	8.4 J	mg/kg	8.4 J	15.9 J	mg/kg	15.9 J						

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITY LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

3-Chloropropene	6 UJ	ug/kg	120	6 UJ	ug/kg	120	6 UJ	ug/kg	110	7 UJ	ug/kg	130			
Acetonitrile	120 U	ug/kg		120 U	ug/kg		110 U	ug/kg		130 U	ug/kg				130
Chloroprene	6 UJ	ug/kg		6 UJ	ug/kg		6 UJ	ug/kg		7 UJ	ug/kg				
Methacrylonitrile	12 UJ	ug/kg		12 UJ	ug/kg		11 UJ	ug/kg		13 UJ	ug/kg				
Methyl methacrylate	12 UJ	ug/kg		12 UJ	ug/kg		11 UJ	ug/kg		13 UJ	ug/kg				
Pentachloroethane	120 UJ	ug/kg		120 UJ	ug/kg		110 UJ	ug/kg		130 UJ	ug/kg				
Propionitrile	120 UJ	ug/kg		120 UJ	ug/kg		110 UJ	ug/kg		130 UJ	ug/kg				
Vinyl acetate	12 U	ug/kg	12	12 U	ug/kg	12	11 U	ug/kg	11	13 U	ug/kg				13

U = NOT DETECTED & = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (0270) ANALYTICAL RUN.

**Lab Sample Number:**

Site

Collect Dates:

Lab Sample Number:	Site	Locator	Collect Date:	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
8665003	RFADATA	568S00104	01-SEP-94												
8665005	RFADATA	568S00204	01-SEP-94												
8665007	RFADATA	568S00304	01-SEP-94												
8665009	RFADATA	568S00405	01-SEP-94												
8KG VOCs (8240-11)															
Chloromethane	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
Bromomethane	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
Vinyl chloride	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
Chloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Methylene chloride	ug/kg	25	ug/kg	6		8 U	ug/kg	6		9 U	ug/kg	6		13 U	ug/kg
Acetone	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Carbon disulfide	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,1-Dichloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,1-Dichloroethene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,2-Dichloroethene (total)	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Chloroform	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,2-Dichloroethane	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
2-Butanone	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,1,1-Trichloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Carbon tetrachloride	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Bromodichloromethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,2-Dichloropropane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
cis-1,3-Dichloropropene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Dibromochloromethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,1,2-Trichloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
trans-1,3-Dichloropropene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Benzene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
trans-1,3-Dichloropropene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Bromobenzene	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
4-Methyl-2-pentanone	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
2-Hexanone	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Tetrachloroethene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,1,2,2-Tetrachloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Toluene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Chlorobenzene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Ethylbenzene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Styrene (total)	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Xylenes (total)	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Trichlorofluoromethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,3-Dichlorobenzene	ug/kg	120 U	ug/kg	120		120 U	ug/kg	120		110 U	ug/kg	110		880 U	ug/kg
Acrolein	ug/kg	120 U	ug/kg	12		120 U	ug/kg	12		110 U	ug/kg	11		130 U	ug/kg
Iodomethane	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
1,4-Dichlorobenzene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Acrylonitrile	ug/kg	120 U	ug/kg	120		120 U	ug/kg	120		110 U	ug/kg	110		130 U	ug/kg
Dibromomethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,2-Dichlorobenzene	ug/kg	630 U	ug/kg	630		780 U	ug/kg	780		6 U	ug/kg	6		7 U	ug/kg
2-Chloroethylvinylether	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
Ethyl methacrylate	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
trans-1,4-Dichloro-2-butene	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
Isobutyl alcohol	ug/kg	250 R	ug/kg	230		230 R	ug/kg	230		6 U	ug/kg	6		260 R	ug/kg
1,1,1,2-Tetrachloroethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,2-Dibromo-3-chloropropane	ug/kg	12 U	ug/kg	12		12 U	ug/kg	12		11 U	ug/kg	11		13 U	ug/kg
1,2-Dibromomethane	ug/kg	6 U	ug/kg	6		6 U	ug/kg	6		6 U	ug/kg	6		7 U	ug/kg
1,4-Dioxane	ug/kg	250 R	ug/kg	230		230 R	ug/kg	230		6 U	ug/kg	6		260 R	ug/kg

# NASTA MAYPORT RFA Soil Boring Data

Lab Sample Number:				RFA DATA				RFA DATA				RFA DATA			
Site				568500104				568500204				568500304			
Collector				01-SEP-94				01-SEP-94				01-SEP-94			
Collect Date:				VALUE				VALUE				VALUE			
				QUAL	UNITS	DL		QUAL	UNITS	DL		QUAL	UNITS	DL	
Anthracene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
D1-n-Butylphthalate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Fluoranthene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Pyrene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Butylbenzylphthalate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
3,3'-dichlorobenzidine				1600 U	ug/kg	1600	1600 U	1600 U	ug/kg	1600	1500 U	ug/kg	1500	1800 U	ug/kg
Benzol(a)anthracene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Chrysene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
bis(2-Ethylhexyl)phthalate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
D1-n-octylphthalate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Benzol(b)fluoranthene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Benzol(k)fluoranthene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Benzol(a)pyrene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Indeno(1,2,3-cd)pyrene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Dibenz(a,h)anthracene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Benzol(g,h,i)perylene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
2-Picoline				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Methyl methanesulfonate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Ethyl methanesulfonate				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Acetophenone				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
N-Nitrosopiperidine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Phenyl - tert-butylamine				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
2,6-Dichlorophenol				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
N-Nitroso-di-n-butylamine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
N-Nitrosodiethylamine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
N-Nitrosopyrrolidine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Benzidine				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
1,2,4,5-Tetrachlorobenzene				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Pentachlorobenzene				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
1-Naphthylamine				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
2-Naphthylamine				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
2,3,4,6-Tetrachlorophenol				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Phenacetin				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
4-Aminobiphenyl				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Pentachloronitrobenzene				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Promazine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
p-(Dimethylamino)azobenzene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
7,12-Dimethylbenz(a)Anthracene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
3-Methylcholanthrene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Pyridine				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
N-Nitrosomethyl ethylamine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
N-Nitrosomorpholine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
o-Toluidine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
Hexachloropropene				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
p-Phenyl ethyl aniline				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Safrole				4100 U	ug/kg	4100	3800 U	3800 U	ug/kg	3800	3800 U	ug/kg	3800	4300 U	ug/kg
Isoeafrole				82000 U	ug/kg	82000	77000 U	77000 U	ug/kg	77000	76000 U	ug/kg	76000	87000 U	ug/kg
1,4-Naphthoquinone				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
1,3-Dinitrobenzene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
5-Nitro-o-toluidine				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
1,3,5-Trinitrobenzene				830 U	ug/kg	830	780 U	780 U	ug/kg	780	770 U	ug/kg	770	880 U	ug/kg
4-Nitroquinoline-1-oxide				41000 U	ug/kg	41000	38000 U	38000 U	ug/kg	38000	38000 U	ug/kg	38000	43000 U	ug/kg

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8665003	RFADATA	568S00104	01-SEP-94	R8665005	RFADATA	568S00204	01-SEP-94	R8665007	RFADATA	568S00304	01-SEP-94	R8665009	RFADATA	568S00405	01-SEP-94

BKG SVOC (8270+24)	ug/kg	830 U	830	780 U	770 U	770	880 U	880
N-Nitrosodimethylamine	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Phenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Aniline	ug/kg	830 U	830	780 U	770 U	770	880 U	880
bis (2-Chloroethyl) ether	ug/kg	830 U	830	780 U	770 U	770	880 U	880
1,3-Dichlorobenzene	ug/kg	6 U	6	6 U	6 U	6	880 U	880
1,4-Dichlorobenzene	ug/kg	6 U	6	6 U	6 U	6	880 U	880
Benzyl Alcohol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
1,2-Dichlorobenzene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2-Methylphenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
bis(2-Chloroisopropyl) ether	ug/kg	830 U	830	780 U	770 U	770	880 U	880
N-Nitroso-di-n-Propylamine	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Hexachloroethane	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Nitrobenzene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Isophorone	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2-Nitrophenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4-Dimethylphenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Benzoic acid	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
bis(2-Chloroethoxy)methane	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4-Dichlorophenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
1,2,4-Trichlorobenzene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Naphthalene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
4-Chloroaniline	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Hexachlorobutadiene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
4-Chloro-3-methylphenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2-Methylnaphthalene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Hexachlorocyclopentadiene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4,6-Trichlorophenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Dimethylphthalate	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4,5-Trichlorophenol	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
2-Chloronaphthalene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2-Nitroaniline	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Acenaphthylene	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
2,6-Dinitrotoluene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
3-Nitroaniline	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
Acenaphthene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4-Dinitrophenol	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
4-Nitrophenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Dibenzofuran	ug/kg	830 U	830	780 U	770 U	770	880 U	880
2,4-Dinitrotoluene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Diethylphthalate	ug/kg	830 U	830	780 U	770 U	770	880 U	880
4-Chlorophenyl-phenylether	ug/kg	830 U	830	780 U	770 U	770	880 U	880
fluorene	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
4-Nitroaniline	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
4,6-Dinitro-2-methylphenol	ug/kg	830 U	830	780 U	770 U	770	880 U	880
N-Nitrosodiphenylamine (1)	ug/kg	830 U	830	780 U	770 U	770	880 U	880
1,2-Diphenylhydrazine	ug/kg	830 U	830	780 U	770 U	770	880 U	880
4-Bromophenyl-phenylether	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Hexachlorobenzene	ug/kg	830 U	830	780 U	770 U	770	880 U	880
Pentachlorophenol	ug/kg	4100 U	4100	3800 U	3800 U	3800	4300 U	4300
Phenanthrene	ug/kg	830 U	830	780 U	770 U	770	880 U	880

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number: R8665003 R8665005 R8665007 R8665009  
 Site RFA DATA RFA DATA RFA DATA  
 Locator 568S00104 568S00204 568S00304 568S00405  
 Collect Date: 01-SEP-94 01-SEP-94 01-SEP-94 01-SEP-94

PESTICIDES/PCBs (SU-B46, B080)	ug/kg																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</
--------------------------------	-------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED





MAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8665003	RFA DATA	568S00104	01-SEP-94	R8665005	RFA DATA	568S00204	01-SEP-94	R8665007	RFA DATA	568S00304	01-SEP-94	R8665009	RFA DATA	568S00405	01-SEP-94

BKG SOILS METALS

mg/kg															
Antimony	1.2 U	mg/kg	1.2	1.2 U	mg/kg	1.2	1.2 U	mg/kg	1.2	1.2 U	mg/kg	1.2	1.3 U	mg/kg	1.3
Arsenic	.55 J	mg/kg	.61 J	mg/kg	.61 J	mg/kg	.42 J	mg/kg	.42 J	mg/kg	.42 J	mg/kg	.42 J	mg/kg	.42 J
Beryllium	3.1 J	mg/kg	2.5 J	mg/kg	2.5 J	mg/kg	3.2 J	mg/kg	3.2 J	mg/kg	3.2 J	mg/kg	3.2 J	mg/kg	3.2 J
Boron	.11 U	mg/kg	.11	mg/kg	.11	mg/kg	.08 U	mg/kg	.08 U	mg/kg	.08 U	mg/kg	.08 U	mg/kg	.08 U
Cadmium	.25 U	mg/kg	.23 U	mg/kg	.23 U	mg/kg	.26 U	mg/kg	.26 U	mg/kg	.26 U	mg/kg	.26 U	mg/kg	.26 U
Chromium	2.1 U	mg/kg	1.7 U	mg/kg	1.7 U	mg/kg	2.2 U	mg/kg	2.2 U	mg/kg	2.2 U	mg/kg	2.2 U	mg/kg	2.2 U
Cobalt	.77 U	mg/kg	.72 U	mg/kg	.72 U	mg/kg	.82 U	mg/kg	.82 U	mg/kg	.82 U	mg/kg	.82 U	mg/kg	.82 U
Copper	1.7 U	mg/kg	1.3 U	mg/kg	1.3 U	mg/kg	1.7 U	mg/kg	1.7 U	mg/kg	1.7 U	mg/kg	1.7 U	mg/kg	1.7 U
Cyanide	.17 U	mg/kg	.16 U	mg/kg	.16 U	mg/kg	.18 U	mg/kg	.18 U	mg/kg	.18 U	mg/kg	.18 U	mg/kg	.18 U
Lead	1.2 J	mg/kg	.98 J	mg/kg	.98 J	mg/kg	.97 J	mg/kg	.97 J	mg/kg	.97 J	mg/kg	.97 J	mg/kg	.97 J
Mercury	.04 UJ	mg/kg	.04 U	mg/kg	.04 U	mg/kg	.05 U	mg/kg	.05 U	mg/kg	.05 U	mg/kg	.05 U	mg/kg	.05 U
Nickel	1.5 U	mg/kg	1.4 U	mg/kg	1.4 U	mg/kg	1.6 U	mg/kg	1.6 U	mg/kg	1.6 U	mg/kg	1.6 U	mg/kg	1.6 U
Selenium	.15 UJ	mg/kg	.14 UJ	mg/kg	.14 UJ	mg/kg	.16 UJ	mg/kg	.16 UJ	mg/kg	.16 UJ	mg/kg	.16 UJ	mg/kg	.16 UJ
Silver	.52 U	mg/kg	.49 U	mg/kg	.49 U	mg/kg	.55 U	mg/kg	.55 U	mg/kg	.55 U	mg/kg	.55 U	mg/kg	.55 U
Thallium	.15 U	mg/kg	.14 U	mg/kg	.14 U	mg/kg	.16 U	mg/kg	.16 U	mg/kg	.16 U	mg/kg	.16 U	mg/kg	.16 U
Tin	2 U	mg/kg	1.9 U	mg/kg	1.9 U	mg/kg	2.1 U	mg/kg	2.1 U	mg/kg	2.1 U	mg/kg	2.1 U	mg/kg	2.1 U
Vanadium	1.8 U	mg/kg	1.9 J	mg/kg	1.9 J	mg/kg	1.4 J	mg/kg	1.4 J	mg/kg	1.4 J	mg/kg	1.4 J	mg/kg	1.4 J
Zinc	3.8 U	mg/kg	5.4 J	mg/kg	5.4 J	mg/kg	6.7 J	mg/kg	6.7 J	mg/kg	6.7 J	mg/kg	6.7 J	mg/kg	6.7 J

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

R8725005

Site

RFADATA

Locator

56M001S

Collect Date:

10-SEP-94

VALUE QUAL UNITS DL

3-Chloropropene	5 UJ	ug/l	100
Acetonitrile	100 U	ug/l	
Chloroform	-	ug/l	
Methacrylonitrile	5 UJ	ug/l	
Methyl methacrylate	10 UJ	ug/l	
Pentachloroethane	10 UJ	ug/l	
Propionitrile	100 UJ	ug/l	
Vinyl acetate	10 U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE

WERE GENERATED FROM THE SWOC (8270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8725005  
RFADATA  
56MAD015  
10-SEP-94

VALUE QUAL UNITS DL

BKG VOCs (8240+11)	ug/l	
Chloromethane	10 U	ug/l
Bromomethane	10 U	ug/l
Vinyl chloride	10 U	ug/l
Chloroethane	10 U	ug/l
Methylene chloride	14 J	ug/l
Acetone	5 U	ug/l
Carbon disulfide	5 U	ug/l
1,1-Dichloroethane	5 U	ug/l
1,1-Dichloroethene	5 U	ug/l
1,2-Dichloroethene (total)	5 U	ug/l
Chloroform	5 U	ug/l
1,2-Dichloroethane	10 R	ug/l
2-Butanone	5 U	ug/l
1,1,1-Trichloroethane	5 U	ug/l
Carbon tetrachloride	5 U	ug/l
Bromodichloromethane	5 U	ug/l
1,2-Dichloropropane	5 U	ug/l
cis-1,3-Dichloropropene	5 U	ug/l
Trichloroethene	5 U	ug/l
Dibromochloroethane	5 U	ug/l
1,1,2-Trichloroethane	5 U	ug/l
Benzene	5 U	ug/l
trans-1,3-Dichloropropene	5 U	ug/l
Bromoform	10 U	ug/l
4-Methyl-2-pentanone	10 U	ug/l
2-Hexanone	5 U	ug/l
Tetrachloroethene	5 U	ug/l
1,1,2,2-Tetrachloroethane	5 U	ug/l
Toluene	5 U	ug/l
Chlorobenzene	5 U	ug/l
Ethylbenzene	5 U	ug/l
Styrene	5 U	ug/l
Xylenes (total)	5 U	ug/l
Trichlorofluoromethane	10 U	ug/l
1,3-Dichlorobenzene	100 U	ug/l
Acrolein	10 U	ug/l
Iodoethane	10 U	ug/l
1,4-Dichlorobenzene	100 U	ug/l
Acrylonitrile	5 U	ug/l
Dibromomethane	10 U	ug/l
1,2-Dichlorobenzene	10 UJ	ug/l
2-Chloroethylvinylether	5 U	ug/l
Ethyl methacrylate	5 U	ug/l
1,2,3-Trichloropropane	5 U	ug/l
trans-1,4-Dichloro-2-butene	200 R	ug/l
Isobutyl alcohol	5 U	ug/l
1,1,1,2-Tetrachloroethane	10 UJ	ug/l
1,2-Dibromo-3-chloropropane	5 UJ	ug/l
1,2-Dibromoethane	5 UJ	ug/l
1,4-Dioxane	200 R	ug/l

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

QUAL UNITS

DL

R8725005

RFA/DATA

56MAD015

10-SEP-94

Anthracene	10 U	ug/l	10
Di-n-butylphthalate	10 U	ug/l	10
Fluoranthene	10 U	ug/l	10
Pyrene	10 U	ug/l	10
Butylbenzylphthalate	10 U	ug/l	10
3,3'-diethylindane	20 U	ug/l	20
Benzo(a)anthracene	10 U	ug/l	10
Chrysene	10 U	ug/l	10
bis(2-ethylhexyl)phthalate	10 U	ug/l	10
Di-n-octylphthalate	10 U	ug/l	10
Benzo(b)fluoranthene	10 U	ug/l	10
Benzo(k)fluoranthene	10 U	ug/l	10
Benzo(a)pyrene	10 U	ug/l	10
Indeno(1,2,3-cd)pyrene	10 U	ug/l	10
Dibenz(a,h)anthracene	10 U	ug/l	10
Benzo(a,h)perylene	10 U	ug/l	10
2-picoline	50 U	ug/l	50
Methyl methanesulfonate	10 U	ug/l	10
Ethyl methanesulfonate	10 U	ug/l	10
Acetophenone	10 U	ug/l	10
N-M-tetrasopiperidine	10 U	ug/l	10
Phenyl-tert-butylamine	50 U	ug/l	50
2,6-Dichlorophenol	10 U	ug/l	10
N-M-tetraso-di-n-butylamine	10 U	ug/l	10
N-M-tetrasopiperidine	10 U	ug/l	10
Benzo(f)pyrene	50 U	ug/l	50
1,2,3-Tetrachlorobenzene	50 U	ug/l	50
Pentachlorobenzene	50 U	ug/l	50
1-Naphthylamine	50 U	ug/l	50
2-Naphthylamine	50 U	ug/l	50
2,3,6-Tetrachlorophenol	10 U	ug/l	10
Phenacetin	50 U	ug/l	50
4-Aminobiphenyl	50 U	ug/l	50
Pentachloronitrobenzene	10 U	ug/l	10
Proxamide	10 U	ug/l	10
p-(Dimethylamino)azobenzene	10 U	ug/l	10
7,12-Dimethylbenz(a)anthracene	10 U	ug/l	10
3-Methylcholanthrene	10 U	ug/l	10
Pyridine	50 U	ug/l	50
N-M-tetrasoethylamine	10 U	ug/l	10
N-M-tetrasopiperidine	10 U	ug/l	10
o-Toluidine	10 U	ug/l	10
Hexachloropropene	50 U	ug/l	50
p-Phenylendiamine	500 U	ug/l	500
BaProl	50 U	ug/l	50
Isosafrole	1000 U	ug/l	1000
1,4-Naphthoquinone	10 U	ug/l	10
1,3-Dinitrobenzene	10 U	ug/l	10
5-M-tetrasoethylamine	10 U	ug/l	10
1,3,5-Trinitrobenzene	10 U	ug/l	10
4-Nitroquinoline-1-oxide	500 U	ug/l	500

NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

R8725005  
RFADATA  
56M001S

10-SEP-94

VALUE QUAL UNITS DL

BKG SVOC (8270+24)	ug/l		
N-Nitrosodimethylamine	10 U	ug/l	10
Phenol	10 U	ug/l	10
Aniline	10 U	ug/l	10
Bis (2-Chloroethyl) ether	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10
Benzyl Alcohol	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10
Bis(2-Chloroisopropyl) ether	10 U	ug/l	10
N-Nitrosodipropylamine	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10
Leptobenzene	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10
2,4-Dinitrophenol	50 U	ug/l	50
Benzoic acid	10 U	ug/l	10
Bis(2-Chloroethoxy)methane	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10
Naphthalene	10 U	ug/l	10
4-Chloronitrobenzene	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10
Dimethylphthalate	50 U	ug/l	50
2,4,5-Trichlorophenol	10 U	ug/l	10
2-Chloronaphthalene	50 U	ug/l	50
2-Nitroaniline	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10
2,6-Dinitroaniline	50 U	ug/l	50
3-Nitroaniline	10 U	ug/l	10
Acenaphthene	50 U	ug/l	50
2,4-Dinitrophenol	10 U	ug/l	10
4-Nitrophenol	10 U	ug/l	10
Dibenzofuran	10 U	ug/l	10
2,4-Dinitrofluorene	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10
4-Chlorophenyl-phenyl ether	10 U	ug/l	10
Fluorene	50 U	ug/l	50
4-Nitroaniline	50 U	ug/l	50
4,6-Dinitro-2-methylphenol	10 U	ug/l	10
N-Nitrosodiphenylamine (1)	10 U	ug/l	10
1,2-Diphenylhydrazine	10 U	ug/l	10
4-Bromophenyl-phenyl ether	10 U	ug/l	10
Hexachlorobenzene	50 U	ug/l	50
Pentachlorophenol	10 U	ug/l	10
Phenanthrene	10 U	ug/l	10

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number: R8725005  
Site REFADATA  
Locator 56M0015  
Collect Date: 10-SEP-94  
VALUE QUAL UNITS DL

PESTICIDES/PCBs (SV-846, 8080)			
	ug/l		
alpha-BHC	.02 U	ug/l	.02
beta-BHC	.04 U	ug/l	.04
delta-BHC	.02 U	ug/l	.02
gamma-BHC (Lindane)	.02 U	ug/l	.02
Heptachlor	.02 U	ug/l	.02
Aldrin	.02 U	ug/l	.02
Heptachlor epoxide	.02 U	ug/l	.02
Endosulfan I	.02 U	ug/l	.02
Dieldrin	.02 U	ug/l	.02
4,4-DDE	.02 U	ug/l	.02
Endrin	.04 U	ug/l	.04
Endosulfan II	.04 U	ug/l	.04
4,4-DDD	.04 U	ug/l	.04
Endosulfan sulfate	.04 U	ug/l	.04
4,4-DDT	.08 U	ug/l	.08
Methoxychlor	.04 U	ug/l	.04
Endrin aldehyde	.04 U	ug/l	.04
Endrin ketone	.04 U	ug/l	.04
Chlordane	.2 U	ug/l	.2
Chlorobenzilate	.5 U	ug/l	.5
Dallate	.1 U	ug/l	.1
Toxaphene	.1 U	ug/l	.1
Isodrin	.02 U	ug/l	.02
Kepon	.1 U	ug/l	.1
Arcofior-1016	.2 U	ug/l	.2
Arcofior-1221	.2 U	ug/l	.2
Arcofior-1232	.2 U	ug/l	.2
Arcofior-1242	.1 U	ug/l	.1
Arcofior-1248	.1 U	ug/l	.1
Arcofior-1254	.5 U	ug/l	.5
Arcofior-1260	.5 U	ug/l	.5

MAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

Site

Locator

Collect Date:

R8725005

RFA001A

56MM001S

10-SEP-94

Methoxyflene  
3,3'-dimethylbenzidine  
Hexachlorophene  
Aralite  
2-chlorophenol  
3- & 4-methylphenol (2)  
4-methylphenol  
Diphenylamine  
Hexachloropropene  
2-Acetylaminofluorene

VALUE	QUAL	UNITS	DL
50 U		ug/l	50
10 U		ug/l	10
500 U		ug/l	50
50 U		ug/l	10
10 U		ug/l	10
-		ug/l	
50 U		ug/l	50
10 U		ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROENZENE WERE GENERATED FROM THE SVOC (R870) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:

R8724005

Site

RFADATA

Locator

56MW0015

Collect Date:

10-SEP-94

VALUE

QUAL UNITS

DL

GROUND WATER QUALITY

Alkalinity as CaCO<sub>3</sub>

mg/l

Ammonia-N

283

mg/l

Chloride

1.8

mg/l

Hardness as CaCO<sub>3</sub>

44.3

mg/l

Nitrate/Nitrite-N

300

mg/l

Oil and Grease

.48

mg/l

Phosphorous-P, Total

5 U

mg/l

Sulfate

1.33

mg/l

Total Dissolved Solids

50

mg/l

Total Kjeldahl Nitrogen

2.4

mg/l

Total Organic Carbon

426

mg/l

Total Organic Carbon

2.2

mg/l

Total Organic Carbon

14

mg/l

COLOR

APHA

Color

120

APHA

pH

units

6.71

units

TOTAL PETROLEUM HYDROCARBONS

mg/l

Total petroleum hydrocarbon

mg/l

mg/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
TW = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



NAVSIA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8726005  
RFADATA  
56M0015  
10-SEP-94  
VALUE QUAL UNITS DL

BKG WATER METALS			
	ug/l		
Arsenic	5 U	ug/l	5
Barium	.6 U	ug/l	.6
Beryllium	9.7 U	ug/l	
Cadmium	.3 U	ug/l	.3
Calcium	1 U	ug/l	1
Chromium	97100	ug/l	
Cobalt	2.6 U	ug/l	2.6
Copper	3.1 U	ug/l	3.1
Cyanide	.9 U	ug/l	.9
Iron	2.7 U	ug/l	2.7
Lead	.477	ug/l	
Magnesium	.6 U	ug/l	.6
Manganese	36100	ug/l	
Mercury	89.4	ug/l	
Nickel	.5 U	ug/l	.5
Selenium	5.9 U	ug/l	5.9
Silver	.6 U	ug/l	.6
Sodium	2.1 U	ug/l	2.1
Thallium	240000	ug/l	
Tin	.6 U	ug/l	.6
Vanadium	8 U	ug/l	8
Zinc	3.8 U	ug/l	
	2.9 U	ug/l	2.9

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MATPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

Lab Sample Number:	Site	Locator	Collect Date:
R8271001	RFADATA	19SS001	30-JUN-94
R8271002	RFADATA	19SS001D	30-JUN-94
R8271003	RFADATA	19SS002	30-JUN-94
R8271004	RFADATA	19SS003	30-JUN-94

3-Chloropropene	5 UJ	ug/kg	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Acetonitrile	100 U	ug/kg	100	5 UJ	ug/kg	100	5 UJ	ug/kg	100	5 U	ug/kg	5
Chloroprene	-	ug/kg	5	100 U	ug/kg	100	-	ug/kg	5	100 U	ug/kg	100
Methacrylonitrile	5 U	ug/kg	10	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Methyl methacrylate	10 UJ	ug/kg	10	10 U	ug/kg	10	10 UJ	ug/kg	10	10 UJ	ug/kg	10
Pentachloroethane	10 UJ	ug/kg	10	10 UJ	ug/kg	10	10 UJ	ug/kg	10	10 UJ	ug/kg	10
Propionitrile	100 UJ	ug/kg	10	100 UJ	ug/kg	10	100 UJ	ug/kg	10	100 U	ug/kg	100
Vinyl acetate	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (R8270) ANALYTICAL RUN.

NAVSIA MATPORT  
RFA Surface Soil DataLab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
-------	------	-------	----	-------	------	-------	----	-------	------	-------	----	-------	------	-------	----

BKG VOCs (8240+11)															
Chloromethane	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Bromomethane	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Vinyl chloride	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Chloroethene	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Methylene chloride	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Acetone	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Carbon disulfide	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethene (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chloroform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
2-Butanone	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
1,1,1-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Carbon tetrachloride	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromodichloromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
cis-1,3-Dichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Dibromochloromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Benzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
trans-1,3-Dichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromoform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
4-Methyl-2-pentanone	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
2-Hexanone	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Tetrachloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2,2-Tetrachloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Toluene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Ethylbenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Styrene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Xylenes (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichlorofluoromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,3-Dichlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Acrolein	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100
Iodoethene	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
1,4-Dichlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Acrylonitrile	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100	100 U	ug/kg	100
Dibromomethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
2-Chloroethylvinylether	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
Ethyl methacrylate	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2,3-Trichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
trans-1,4-Dichloro-2-butene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Isobutyl alcohol	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210
1,1,1,2-Tetrachloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dibromo-3-chloropropane	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10	10 U	ug/kg	10
1,2-Dibromoethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,4-Dioxane	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210	210 R	ug/kg	210

# NAVSIA HAYPORT RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	680 U	U	ug/kg	680
2-Chloroethylvinyl ether	11 U	U	ug/kg	11	10 U	U	ug/kg	10	10 U	U	ug/kg	10
Ethyl methacrylate	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,2,3-Trichloropropane	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
trans-1,4-Dichloro-2-butene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Isobutyl alcohol	210 R	R	ug/kg	5	210 R	R	ug/kg	5	210 R	R	ug/kg	5
1,1,1,2-Tetrachloroethane	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,2-Dibromo-3-chloropropane	11 U	U	ug/kg	11	10 U	U	ug/kg	10	10 U	U	ug/kg	10
1,2-Dibromoethane	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,4-Dioxane	210 R	R	ug/kg	5	210 R	R	ug/kg	5	210 R	R	ug/kg	5
3-Chloropropene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Acetonitrile	110 U	U	ug/kg	110	100 U	U	ug/kg	100	100 U	U	ug/kg	100
Chloroprene	-		ug/kg		-		ug/kg		-		ug/kg	
Methacrylonitrile	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Methyl methacrylate	11 U	U	ug/kg	11	10 U	U	ug/kg	10	10 U	U	ug/kg	10
Pentachloroethane	11 U	U	ug/kg	11	10 U	U	ug/kg	10	10 U	U	ug/kg	10
Propionitrile	110 U	U	ug/kg	110	100 U	U	ug/kg	100	100 U	U	ug/kg	100
Vinyl acetate	11 U	U	ug/kg	11	10 U	U	ug/kg	10	10 U	U	ug/kg	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4-DICHLOROBENZENE WERE GENERATED FROM THE 8VOC (8270) ANALYTICAL RUN.

MAVISTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
88271005	RFA DATA	19SS006		88271006	RFA DATA	19SS005		88271007	RFA DATA	19SS006	
30-JUN-94				30-JUN-94				30-JUN-94			

ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Bkg VOCs (8240+11)	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Chloromethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Bromomethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Vinyl chloride	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Chloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Methylene chloride	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Acetone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Carbon disulfide	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,1-Dichloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,1-Dichloroethene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,2-Dichloroethene (total)	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Chloroform	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,2-Dichloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
2-Butanone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,1,1-Trichloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Carbon tetrachloride	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Bromodichloromethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,2-Dichloropropane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
cis-1,3-Dichloropropene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Trichloroethene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Dibromochloromethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,1,2-Trichloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Benzene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
trans-1,3-Dichloropropene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Bromofore	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
4-Methyl-2-pentanone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
2-Hexanone	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Tetrachloroethene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,1,2,2-Tetrachloroethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Toluene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Chlorobenzene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Ethylbenzene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Styrene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Xylenes (total)	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Trichlorofluoromethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,3-Dichlorobenzene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Acrolein	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Iodomethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
1,6-Dichlorobenzene	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Acrylonitrile	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10
Dibromomethane	11 U	ug/kg	11	10 U	ug/kg	10	10 U	ug/kg	10	10	10

**Lab Sample Number:**

R8271001	RFADATA	19SS001	30-JUN-94	QUAL UNITS	VALUE
----------	---------	---------	-----------	------------	-------

VALUE	QUAL	UNITS	D
-------	------	-------	---

RB271003  
RFADATA  
19SS002  
30-JUN-94  
QUAL UNITS DL

RB271004  
RFADATA  
19SS003  
30-JUN-94  
QUAL UNITS DL

Anthracene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Di-n-butylphthalate	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Fluoranthene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Pyrene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Butylbenzylphthalate	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
3,3'-Dichlorodiphenylidene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzof(a)anthracene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Chrysene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
bis(2-Ethylhexyl)phthalate	680 U	ug/kg	680	72 J	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Di-n-octylphthalate	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzof(b)fluoranthene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzof(k)fluoranthene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzo(a)pyrene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Indeno(1,2,3-cd)pyrene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Dibenz(a,h)anthracene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzof(g,h,i)perylene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
2-Picoline	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Methyl methanesulphonate	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Ethyl methanesulphonate	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Acetophenone	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
N-Mitrosopyridine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Phenylacetate-butylamine	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
2,6-Dichlorophenol	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
N-Mitroso-di-n-butylamine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
N-Mitrosoethylamine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
N-Mitrosopyrrolidine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690	690	690 U	ug/kg	690	690	690 U	ug/kg	690
Benzidine	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
1,2,4,5-Tetrachlorobenzene	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
Pentachlorobenzene	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
1-Naphthylamine	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
2-Naphthylamine	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
2,3,4,6-Tetrachlorophenol	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
Phenacetin	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
4-Aminobiphenyl	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
Pentachloronitrobenzene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
Permanilide	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
P-(Dimethylamino)azobenzene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
7,12-Dimethylbenz(a)Anthracene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
3-Methylcholanthrene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
Pyridine	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
N-Mitrosomethyl ethylamine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
N-Mitrosomorpholine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
o-Toluidine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680	ug/kg	680	680 U	ug/kg	680	680
Hexachlorocyclopentadiene	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
p-Phenylendiamine	33000 U	ug/kg	33000	33000 U	ug/kg	33000	33000	690 U	ug/kg	690		33000 U	ug/kg	33000	33000 U	ug/kg	33000	33000
Barbitole	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300	690 U	ug/kg	690		3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300
1,6-Naphthoquinone	68000 U	ug/kg	68000	68000 U	ug/kg	68000	68000	690 U	ug/kg	690		68000 U	ug/kg	68000	68000 U	ug/kg	68000	68000
1,3-Dinitrobenzene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680 U	ug/kg	680	680 U	ug/kg	680	680
5-Nitro-o-toluidine	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680 U	ug/kg	680	680 U	ug/kg	680	680
1,3,5-Trinitrobenzene	680 U	ug/kg	680	680 U	ug/kg	680	680	690 U	ug/kg	690		680 U	ug/kg	680	680 U	ug/kg	680	680
4-Nitroquinoline-1-oxide	33000 U	ug/kg	33000	33000 U	ug/kg	33000	33000	690 U	ug/kg	690		33000 U	ug/kg	33000	33000 U	ug/kg	33000	33000









# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:	R8271001	R8271002	R8271003	R8271004					
Site	RFADATA	RFADATA	RFADATA	RFADATA					
Locator	19SS001	19SS001D	19SS002	19SS003					
Collect Date:	30-JUN-94	30-JUN-94	30-JUN-94	30-JUN-94					
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Methpyrflene	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300 U	ug/kg	3300
3,3'-Dimethylbenzidine	680 U	ug/kg	680	680 U	ug/kg	680	690 U	ug/kg	690
Hexachlorophene	33000 R	ug/kg	33000 R	33000 R	ug/kg	33000 U	33000 R	ug/kg	33000 R
Arsenite	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300 U	ug/kg	3300
2-Chlorophenol	680 U	ug/kg	680	680 U	ug/kg	680	690 U	ug/kg	690
3,4-Methylphenol (2)	680 U	ug/kg	680	680 U	ug/kg	680	690 U	ug/kg	690
4-Methylphenol	-	ug/kg	-	-	ug/kg	-	-	ug/kg	-
Diphenylamine	-	ug/kg	-	-	ug/kg	-	-	ug/kg	-
Hexachloropropene	3300 U	ug/kg	3300	3300 U	ug/kg	3300	3300 U	ug/kg	3300
2-Acetylaminofluorene	680 U	ug/kg	680	680 U	ug/kg	680	690 U	ug/kg	690

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SYOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

R8271005

RFA DATA

19SS004

30-JUN-94

R8271006

RFA DATA

19SS005

30-JUN-94

R8271007

RFA DATA

19SS006

30-JUN-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
Hexachloropropene	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
p-Phenylenediamine	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
Safrrole	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
Isosafrole	69000 U		ug/kg	69000	69000 U		ug/kg	69000	68000 U		ug/kg	68000
1,4-Naphthoquinone	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
1,3-Dinitrobenzene	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
5-Nitro-o-toluidine	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
1,3,5-Trinitrobenzene	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
4-Nitroquinoline-1-oxide	33000 U		ug/kg	33000	33000 U		ug/kg	33000	33000 U		ug/kg	33000
Methpyrflene	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
3,3'-Dimethylbenzidine	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
Hexachlorophene	33000 U		ug/kg	33000	33000 U		ug/kg	33000	33000 U		ug/kg	33000
Aramite	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
2-Chlorophenol	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
3,4-Dimethylphenol (2)	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
4-Methylphenol	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680
Diphenylamine	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
Hexachloropropene	3300 U		ug/kg	3300	3300 U		ug/kg	3300	3300 U		ug/kg	3300
2-Acetylaminofluorene	690 U		ug/kg	690	690 U		ug/kg	690	680 U		ug/kg	680

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (0270) ANALYTICAL RUN.

# NAVSIA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8271005  
RFADATA  
19SS004  
30-JUN-94

R8271006  
RFADATA  
19SS005  
30-JUN-94

R8271007  
RFADATA  
19SS006  
30-JUN-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Fluorene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
4-Nitroaniline	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
4,6-Dinitro-2-methylphenol	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitrosodiphenylamine (1)	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
1,2-Diphenylhydrazine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
4-Bromophenyl-phenylether	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Hexachlorobenzene	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Pentachlorophenol	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Phenanthrene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Anthracene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Di-n-Butylphthalate	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Fluoranthene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Pyrene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Butylbenzylphthalate	1400 U	ug/kg	1400		1400 U	ug/kg	1400		1400 U	ug/kg	1400	
3,3'-Dichlorobenzidine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Benzo(a)anthracene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Chrysene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Bis(2-Ethylhexyl)phthalate	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Di-n-octylphthalate	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Benzo(b)fluoranthene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Benzo(k)fluoranthene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Benzo(a)pyrene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Indeno(1,2,3-cd)pyrene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Dibenz(a,h)anthracene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Benzo(g,h,i)perylene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
2-Picoline	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Methyl methanesulphonate	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Ethyl methanesulphonate	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Acetophenone	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitrosopiperidine	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Phenyl-tert-butylamine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
2,6-Dichlorophenol	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitroso-di-n-butylamine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitrosodiphenylamine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitrosopyrrolidine	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Benzo(d)pyrene	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
1,2,4,5-Tetrachlorobenzene	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Pentachlorobenzene	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
1-Naphthylamine	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
2-Naphthylamine	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
2,3,4,6-Tetrachlorophenol	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Phenacetin	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
4-Aminobiphenyl	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Pentachloronitrobenzene	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
Protonilide	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
p-(Dimethylamino)azobenzene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
7,12-Dimethylbenzo(a)anthracene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
3-Methylcholanthrene	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
Pyridine	3300 U	ug/kg	3300		3300 U	ug/kg	3300		3300 U	ug/kg	3300	
N-Nitrosomethyl ethylamine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	
N-Nitrosomorpholine	690 U	ug/kg	690		690 U	ug/kg	690		680 U	ug/kg	680	

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

QUAL UNITS

DL

R8271005

RFA DATA

19SS004

30-JUN-94

R8271006

RFA DATA

19SS005

30-JUN-94

R8271007

RFA DATA

19SS006

30-JUN-94

DL

PESTICIDES/PCBs (SU-846, 8080)

ug/kg

alpha-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
beta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
delta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
gamma-BHC (Lindane)	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Heptachlor	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Aldrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Heptachlor epoxide	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endosulfan I	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Dieldrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
4,4-DDE	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endosulfan II	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
4,4-DDT	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Methoxychlor	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endrin aldehyde	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Endrin ketone	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Chlordane	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Chlorobenzilate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Diallate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Toxaphene	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Isodrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Kepon	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1016	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1221	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1232	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1242	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1248	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1254	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3
Arcochlor-1260	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.3 U	ug/kg	1.3

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:		Site		Collector		Collect Date:		R8271001		R8271002		R8271003		R8271004	
RFA DATA		RFA DATA		RFA DATA		RFA DATA		RFA DATA		RFA DATA		RFA DATA		RFA DATA	
19SS001		19SS001D		19SS001D		19SS001D		19SS001D		19SS001D		19SS001D		19SS001D	
30-JUN-94		30-JUN-94		30-JUN-94		30-JUN-94		30-JUN-94		30-JUN-94		30-JUN-94		30-JUN-94	
VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
alpha-BHC	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
beta-BHC	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
delta-BHC	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
gamma-BHC (Lindane)	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Heptachlor	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Aldrin	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Heptachlor epoxide	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Endosulfan I	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Dieldrin	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
4,4-DDE	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Endrin	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Endosulfan II	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
4,4-DDB	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Endosulfan sulfate	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
4,4-DDT	ug/kg	2.8 U	2.8	2.8 U	ug/kg	2.8	2.8	2.8 U	ug/kg	2.8	2.8	2.8 U	ug/kg	2.8	2.8
Methoxychlor	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Endrin aldehyde	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Endrin ketone	ug/kg	1.3 U	1.3	1.3 U	ug/kg	1.3	1.3	1.4 U	ug/kg	1.4	1.4	1.3 U	ug/kg	1.3	1.3
Chlordane	ug/kg	6.9 U	6.9	6.9 U	ug/kg	6.9	6.9	6.9 U	ug/kg	6.9	6.9	6.9 U	ug/kg	6.9	6.9
Chlorobenzilate	ug/kg	21 U	21	21 U	ug/kg	21	21	21 U	ug/kg	21	21	21 U	ug/kg	21	21
Diallate	ug/kg	41 U	41	41 U	ug/kg	41	41	42 U	ug/kg	42	42	42 U	ug/kg	42	42
Toxaphene	ug/kg	34 U	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34
Isodrin	ug/kg	.69 U	.69	.69 U	ug/kg	.69	.69	.7 U	ug/kg	.7	.7	.7 U	ug/kg	.7	.7
Kepone	ug/kg	41 U	41	41 U	ug/kg	41	41	42 U	ug/kg	42	42	42 U	ug/kg	42	42
Aroclor-1016	ug/kg	34 U	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34
Aroclor-1221	ug/kg	69 U	69	69 U	ug/kg	69	69	70 U	ug/kg	70	70	70 U	ug/kg	70	70
Aroclor-1232	ug/kg	69 U	69	69 U	ug/kg	69	69	70 U	ug/kg	70	70	70 U	ug/kg	70	70
Aroclor-1242	ug/kg	34 U	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34
Aroclor-1248	ug/kg	34 U	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34	34 U	ug/kg	34	34
Aroclor-1254	ug/kg	17 U	17	17 U	ug/kg	17	17	17 U	ug/kg	17	17	17 U	ug/kg	17	17
Aroclor-1260	ug/kg	17 U	17	17 U	ug/kg	17	17	17 U	ug/kg	17	17	17 U	ug/kg	17	17

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8271005	RFADATA			R8271006	RFADATA			R8271007	RFADATA		
19SS004				19SS005				19SS006			
30-JUN-94				30-JUN-94				30-JUN-94			

BKG SOILS METALS

	mg/kg										
Antimony	1 U	mg/kg	1	1 U	mg/kg	1	1 U	mg/kg	1		
Arsenic	.5 J	mg/kg		13.2 J	mg/kg		.39 J	mg/kg			
Beryllium	.2 J	mg/kg		.26 J	mg/kg		.06 U	mg/kg			
Bismuth	.06 U	mg/kg	.06	.21 U	mg/kg	.21	.22 J	mg/kg	.06		
Cadmium	.21 U	mg/kg	.21	.94 U	mg/kg	.94	.64 U	mg/kg	.64		
Chromium	.65 U	mg/kg	.65	2.7 J	mg/kg	.14	1.3 J	mg/kg	.14		
Cobalt	1.8 J	mg/kg	.14	.14 U	mg/kg	.03	.03 U	mg/kg	.03		
Copper	1.2 J	mg/kg	.03	.03 U	mg/kg	.13	1.2 U	mg/kg	1.2		
Cyanide	.03 U	mg/kg	.13	.13 U	mg/kg	.44	.43 U	mg/kg	.43		
Lead	1.2 U	mg/kg	.44	.14 U	mg/kg	.14	.14 U	mg/kg	.14		
Mercury	.13 U	mg/kg	.14	4.2 U	mg/kg	4.2	4.2 U	mg/kg	4.2		
Nickel	.14 U	mg/kg	4.2	7.3 J	mg/kg		5.1 J	mg/kg			
Selenium	.14 U	mg/kg									
Silver	4.2 U	mg/kg									
Thallium	1.4 J	mg/kg									
Tin	4.9 J	mg/kg									
Vanadium											
Zinc											

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number: R8271001 R8271002 R8271003 R8271004  
 Site RFA DATA RFA DATA RFA DATA RFA DATA  
 Locator 19SSD01 19SSD01D 19SSD02 19SSD03  
 Collect Date: 30-JUN-94 30-JUN-94 30-JUN-94 30-JUN-94

BKG SOILS METALS	mg/kg	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Antimony	1 U				1	1 U				1				1 U			1
Arsenic	.58 J	mg/kg				.5 J	mg/kg			.08 J	mg/kg			.56 J	mg/kg		
Barium	23.7 J	mg/kg				7.8 J	mg/kg			4.8 J	mg/kg			2.5 J	mg/kg		
Beryllium	.4 J	mg/kg				.09 J	mg/kg			.08 J	mg/kg			.07 J	mg/kg		
Cadmium	.38 J	mg/kg				1 J	mg/kg			.22 J	mg/kg			.21 J	mg/kg		
Chromium	15.8 J	mg/kg			1.5	5 J	mg/kg			1.6 J	mg/kg			2.5 J	mg/kg		.21
Cobalt	1.5 U	mg/kg				.64 U	mg/kg			.05 U	mg/kg			.64 U	mg/kg		.64
Copper	9.7 J	mg/kg				5.3 J	mg/kg			2.9 J	mg/kg			2.3 J	mg/kg		
Cyanide	.14 U	mg/kg			.14	.14 U	mg/kg			.14 U	mg/kg			.14 U	mg/kg		.14
Lead	.03 U	mg/kg			.03	.03 U	mg/kg			.03 U	mg/kg			.03 U	mg/kg		.03
Mercury	.4 J	mg/kg				1.2 U	mg/kg			1.2 U	mg/kg			1.2 U	mg/kg		
Nickel	.14 J	mg/kg			.43	.12 U	mg/kg			.13 U	mg/kg			.12 U	mg/kg		.12
Selenium	.43 U	mg/kg				.43 U	mg/kg			.44 U	mg/kg			.44 U	mg/kg		.44
Silver	.14 U	mg/kg			.14	.14 U	mg/kg			.14 U	mg/kg			.14 U	mg/kg		.14
Thallium	4.2 U	mg/kg			4.2	4.2 U	mg/kg			4.7 U	mg/kg			4.2 U	mg/kg		
Tin	7.8 J	mg/kg				3 J	mg/kg			3.8 J	mg/kg			1.5 J	mg/kg		
Vanadium	32.6 J	mg/kg				10.8 J	mg/kg			3.8 J	mg/kg			4 J	mg/kg		4.2
Zinc																	

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:

R8271008  
RFADATA  
198S001

Site  
Locator

Collect Date:

VALUE  
QUAL UNITS

R8271009  
RFADATA  
198S001D

RFADATA  
198S001D

30-JUN-94

VALUE  
QUAL UNITS

R8271010  
RFADATA  
198S002

RFADATA  
198S002

30-JUN-94

VALUE  
QUAL UNITS

R8271011  
RFADATA  
198S003

RFADATA  
198S003

30-JUN-94

VALUE  
QUAL UNITS

3-Chloropropene	6 U	ug/kg	6	6 U	ug/kg	6	5 U	ug/kg	5	6 U	ug/kg	6
Acetonitrile	110 U	ug/kg	110	110 U	ug/kg	110	110 U	ug/kg	110	120 U	ug/kg	120
Chloroprene	-	ug/kg	-	-	ug/kg	-	-	ug/kg	-	-	ug/kg	-
Methacrylonitrile	6 U	ug/kg	6	6 U	ug/kg	6	5 U	ug/kg	5	6 U	ug/kg	6
Methyl methacrylate	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	12 U	ug/kg	12
Pentachloroethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	12 U	ug/kg	12
Propionitrile	110 U	ug/kg	110	110 U	ug/kg	110	110 U	ug/kg	110	120 U	ug/kg	120
Vinyl acetate	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	12 U	ug/kg	12

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE FOLLOWING LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOG (R8270) ANALYTICAL RUN.



NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:

Site

Collect Date:

Lab Sample Number:		Site		Collector Date:							
VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG VOCs (8240-11)											
Chloroethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
Bromoethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
Vinyl chloride	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
Chloroethene	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
Methylene chloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Acetone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
Carbon disulfide	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,1-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,1-Dichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2-Dichloroethene (total)	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Chloroform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2-Dichloroethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
2-Butanone	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,1,1-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Carbon tetrachloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Bromodichloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2-Dichloropropane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Trichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Dibromochloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,1,2-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Benzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Cumene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Bromoform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
trans-1,3-Dichloropropene	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
4-Methyl-2-pentanone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
2-Hexanone	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Tetrachloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,1,2,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Toluene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Chlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Ethylbenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Styrene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Xylenes (total)	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Trichlorofluoromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,3-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Acrolein	110 U	ug/kg	11	110 U	ug/kg	11	110 U	ug/kg	11	ug/kg	120
1,4-Dioxane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
1,4-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Acrylonitrile	110 U	ug/kg	110	110 U	ug/kg	110	110 U	ug/kg	110	ug/kg	120
Dibromomethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2-Dichlorobenzene	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
2-Chloroethylvinylether	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Ethyl methacrylate	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2,3-Trichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
trans-1,4-Dichloro-2-butene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
Isobutyl alcohol	220 R	ug/kg	220	220 R	ug/kg	220	220 R	ug/kg	220	ug/kg	240
1,1,1,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,2-Dibromo-3-chloropropene	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	ug/kg	12
1,2-Dibromomethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	ug/kg	6
1,4-Dioxane	220 R	ug/kg	220	220 R	ug/kg	220	220 R	ug/kg	220	ug/kg	240

NAVSIA MATPORT  
RFA Soil Boring Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
88271012	RFADATA	30-JUN-94		88271013	RFADATA	30-JUN-94		88271014	RFADATA	30-JUN-94	
198S004				198S005				198S006			

1,2-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
2-Chloroethylvinylether	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11
Ethyl methacrylate	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2,3-Trichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
trans-1,4-Dichloro-2-butene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Isobutyl alcohol	250 R	ug/kg	6	220 R	ug/kg	6	220 R	ug/kg	6
1,1,1,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dibromo-3-chloropropene	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11
1,2-Dibromoethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,4-Dioxane	250 R	ug/kg	6	220 R	ug/kg	6	220 R	ug/kg	6
3-Chloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Acetonitrile	130 U	ug/kg	130	110 U	ug/kg	110	110 U	ug/kg	110
Chloroprene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Methacrylonitrile	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11
Methyl methacrylate	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11
Pentachloroethane	130 U	ug/kg	130	110 U	ug/kg	110	110 U	ug/kg	110
Propionitrile	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11
Vinyl acetate	13 U	ug/kg	13	11 U	ug/kg	11	11 U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4,5,6 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOG (8270) ANALYTICAL RUN.



NAVSIA MAPPORT  
RFA Borling Soil Data

Lab Sample Number:				R8271008				R8271009				R8271010				R8271011			
Site				RFADATA				RFADATA				RFADATA				RFADATA			
Locator				198S001				198S001D				198S002				198S003			
Collect Date:				30-JUN-94				30-JUN-94				30-JUN-94				30-JUN-94			
				VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Di-n-butylphthalate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Fluoranthene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Pyrene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Butylbenzylphthalate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
5,3-Dichlorobenzidine				1500 U		ug/kg	1500	1500 U		ug/kg	1500	1400 U		ug/kg	1400	1600 U		ug/kg	1600
Benzof(a)anthracene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Chrysene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Di(2-Ethylhexyl)phthalate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Di-n-octylphthalate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Benzof(b)fluoranthene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Benzof(k)fluoranthene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Benzof(a)pyrene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Indeno(1,2,3-cd)pyrene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Dibenz(a,h)anthracene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Benzof(g,h,i)perylene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
2-Picoline				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Methyl methanesulfonate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Ethyl methanesulfonate				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Acetophenone				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsoplaridine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Phenyl-tert-butylamine				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
2,6-Dichlorophenol				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsodi-n-butylamine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsodiethylamine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsopropylidide				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Benzidine				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
1,2,4,5-Tetrachlorobenzene				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Pentachlorobenzene				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
1-Methylamine				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
2-Naphthylamine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
2,3,4,6-Tetrachlorophenol				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Phenacetin				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
4-Aminobiphenyl				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Pentachloronitrobenzene				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Pronalide				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
P-(Diethylamino)azobenzene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
7,12-Dimethylbenz(A)anthracene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
3-Methylcholanthrene				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Pyridine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsodietylethylamine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
N-Microsodimethylamine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
o-Toluidine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
Hexachlorocyclopentadiene				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
p-Phenylenediamine				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
Safrole				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900
1,4-Naphthoquinone				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
1,3-Dinitrobenzene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
5-Mitro-o-toluidine				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
1,3,5-Trinitrobenzene				730 U		ug/kg	730	740 U		ug/kg	740	690 U		ug/kg	690	800 U		ug/kg	800
4-Nitroquinoline-1-oxide				3600 U		ug/kg	3600	3600 U		ug/kg	3600	3400 U		ug/kg	3400	3900 U		ug/kg	3900

# NAVSIA MAYPORT RFA Borling Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
R8271006	RFA DATA	198S001	30-JUN-94	R8271009	RFA DATA	198S001D	30-JUN-94	R8271010	RFA DATA	198S002	30-JUN-94	R8271011	RFA DATA	198S003	30-JUN-94

ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
8KG SYNC (8270-24)	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
M-Nitroacetanilide	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Phenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Aniline	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
bis (2-Chloroethyl) ether	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
1,3-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
1,4-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Benzyl Alcohol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
1,2-Dichlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2-Methylphenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
bis(2-Chloroisopropyl) ether	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
M-Nitroso-di-n-propylamine	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Hexachloroethane	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Nitrobenzene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Isophorone	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2-Nitrophenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4-Dimethylphenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Benzoic acid	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
bis(2-Chloroethoxy)methane	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4-Dichlorophenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
1,2,4-Trichlorobenzene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Naphthalene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Chloroaniline	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Hexachlorocyclopentadiene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Chloro-3-methylphenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2-Methylnaphthalene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Hexachlorocyclopentadiene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4,6-Trichlorophenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Dimethylphthalate	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4,5-Trichlorophenol	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
2-Chloronaphthalene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2-Nitroaniline	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Acenaphthylene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,6-Dinitrofluorene	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
3-Nitroaniline	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Acenaphthene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4-Dinitrophenol	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
4-Nitrophenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Dibenzofuran	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
2,4-Dinitrofluorene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Diethylphthalate	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Chlorophenyl-phenyl ether	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Fluorene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Nitroaniline	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
4,6-Dinitro-2-methylphenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
8-Nitro-2-methylphenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Nitro-2-methylphenol (1)	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
1,2-bis(phenyl)hydrazine	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
4-Bromophenyl-phenyl ether	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Hexachlorobenzene	3600 U	ug/kg	3600	740 U	ug/kg	740	690 U	ug/kg	690	3900 U	ug/kg	3900	800 U	ug/kg	800
Pentachlorophenol	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800
Phenanthrene	730 U	ug/kg	730	740 U	ug/kg	740	690 U	ug/kg	690	800 U	ug/kg	800	800 U	ug/kg	800

NAVSTA MAYPORT  
RFA Boring Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

Lab Sample Number:	88271012	88271013	88271014								
Site	RFADATA	RFADATA	RFADATA								
Locator	198S004	198S005	198S006								
Collect Date:	30-JUN-94	30-JUN-94	30-JUN-94								
VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG. SVOC (8270-24)											
N-Nitrosodimethylamine	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Phenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Aniline	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
bis (2-Chloroethyl) ether	6 U	ug/kg	6	740 U	ug/kg	740	6 U	ug/kg	6	ug/kg	6
1,3-Dichlorobenzene	6 U	ug/kg	6	740 U	ug/kg	740	6 U	ug/kg	6	ug/kg	6
1,4-Dichlorobenzene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Benzyl Alcohol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
1,2-Dichlorobenzene	6 U	ug/kg	6	740 U	ug/kg	740	6 U	ug/kg	6	ug/kg	6
2-Methylphenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
bis(2-Chloroisopropyl) ether	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
N-Nitroso-di-n-propylamine	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Hexachloroethane	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Nitrobenzene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Isophorone	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2-Nitrophenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,4-Dimethylphenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Benzoic acid	4100 U	ug/kg	4100	3600 U	ug/kg	3600	3600 U	ug/kg	3600	ug/kg	3600
bis(2-Chloroethoxy)methane	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,4-Dichlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
1,2,4-Trichlorobenzene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Naphthalene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
4-Chloroaniline	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Hexachlorobutadiene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
4-Chloro-3-methylphenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2-Methylnaphthalene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Hexachlorocyclopentadiene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,4,6-Trichlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Dimethylphthalate	4100 U	ug/kg	4100	3600 U	ug/kg	3600	3600 U	ug/kg	3600	ug/kg	3600
2,4,5-Trichlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2-Chloronaphthalene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	3600 U	ug/kg	3600	ug/kg	3600
2-Nitroaniline	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Acenaphthylene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,6-Dinitrotoluene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	3600 U	ug/kg	3600	ug/kg	3600
3-Nitroaniline	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Acenaphthene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,4-Dinitrophenol	4100 U	ug/kg	4100	3600 U	ug/kg	3600	3600 U	ug/kg	3600	ug/kg	3600
4-Nitrophenol	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Dibenzofuran	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
2,4-Dinitrotoluene	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740
Diethylphthalate	840 U	ug/kg	840	740 U	ug/kg	740	740 U	ug/kg	740	ug/kg	740



NAVSTA MAYPORT  
RFA Boring Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8271008  
RFADATA  
198S001  
30-JUN-94

R8271009  
RFADATA  
198S001D  
30-JUN-94

R8271010  
RFADATA  
198S002  
30-JUN-94

R8271011  
RFADATA  
198S003  
30-JUN-94

Methapyllene  
3,3'-Dimethylbenzidine  
Hexachlorophene  
Aralite  
2-Chlorophenol  
5- & 4-Methylphenol (2)  
4-Methylphenol  
Diphenylamine  
Hexachlorophene  
2-Acetylaminofluorene

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3600 UJ	UJ	ug/kg	730	3600 UJ	UJ	ug/kg	740	3400 UJ	UJ	ug/kg	690	3900 UJ	UJ	ug/kg	800
730 U	U	ug/kg	730	740 U	U	ug/kg	740	690 U	U	ug/kg	690	800 U	U	ug/kg	800
36000 UJ	UJ	ug/kg	3600	36000 UJ	UJ	ug/kg	3600	34000 UJ	UJ	ug/kg	3400	39000 UJ	UJ	ug/kg	3900
3600 U	U	ug/kg	730	740 U	U	ug/kg	740	690 U	U	ug/kg	690	800 U	U	ug/kg	800
730 U	U	ug/kg	730	740 U	U	ug/kg	740	690 U	U	ug/kg	690	800 U	U	ug/kg	800
-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-
3600 U	U	ug/kg	3600	3600 U	U	ug/kg	3600	3400 U	U	ug/kg	3400	3900 U	U	ug/kg	3900
730 U	U	ug/kg	730	740 U	U	ug/kg	740	690 U	U	ug/kg	690	800 U	U	ug/kg	800

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (R8270) ANALYTICAL RUN.

NAVSIA MAYPORT  
RFA Boring Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8271012  
RFADATA  
198S006  
30-JUN-94

R8271013  
RFADATA  
198S005  
30-JUN-94

R8271014  
RFADATA  
198S006  
30-JUN-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
Hexachlorocyclopentadiene	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
p-Phenylenediamine	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Safrole	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Isosafrole	8400 U		ug/kg	8400	7400 U		ug/kg	7400	7400 U		ug/kg	7400
1,4-Naphthoquinone	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
1,3-Dinitrobenzene	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
5-Nitro-o-toluidine	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
1,3,5-Trinitrobenzene	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
4-Nitroquinoline-1-oxide	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Methapyrene	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
3,3'-Dimethylbenzidine	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Hexachlorophene	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Aramite	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
2-Chlorophenol	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
3- & 4-Methylphenol (2)	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
4-Methylphenol	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
Diphenylamine	4100 U		ug/kg	4100	3600 U		ug/kg	3600	3600 U		ug/kg	3600
Hexachlorocyclopentadiene	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740
2-Acetylaminofluorene	840 U		ug/kg	840	740 U		ug/kg	740	740 U		ug/kg	740

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE FOLLOWING LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



# NAVSIA MAYPORT RFA Boring Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenyl ether	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Fluorene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
4-Nitrobenzidine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
4,6-Dinitro-2-methylphenol	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
4-Nitrophenylhydrazine (1)	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
1,2-Diphenylhydrazine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
4-Bromophenyl-phenyl ether	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Hexachlorobenzene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Pentachlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Phenanthrene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Anthracene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Di-n-Butylphthalate	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Fluoranthene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Pyrene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Butylbenzylphthalate	1700 U	ug/kg	1700	1500 U	ug/kg	1500	ug/kg	1500	840	ug/kg	1500	1500
3,3'-Dichlorobenzidine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Benzo(a)anthracene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Chrysene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
bis(2-Ethylhexyl)phthalate	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Di-n-octylphthalate	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Benzo(b)fluoranthene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Benzo(k)fluoranthene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Benzo(a)pyrene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Indeno(1,2,3-cd)pyrene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Dibenz(a,h)anthracene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Benzo(g,h,i)perylene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
2-Picoline	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Methyl methanesulfonate	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Ethyl methanesulfonate	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Acetophenone	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
N-Nitrosopiperidine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Phenyl-tert-butylamine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
2,6-Dichlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
N-Nitroso-di-n-butylamine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
N-Nitrosodimethylamine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
N-Nitrosopyrrolidine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Benzo(a)pyrene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
1,2,4,5-Tetrachlorobenzene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Pentachlorobenzene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
1-Naphthylamine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
2-Naphthylamine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
2,3,4,6-Tetrachlorophenol	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Phenacetin	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
4-Aminobiphenyl	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Pentachloronitrobenzene	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
Precaulide	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
P-10 Isomethylmethylazobenzene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
7,12-Dimethylbenz(A)anthracene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
3-Methylcholanthrene	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
Pyridine	4100 U	ug/kg	4100	3600 U	ug/kg	3600	ug/kg	3600	840	ug/kg	3600	3600
N-Nitrosodimethylamine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740
N-Nitrosomorpholine	840 U	ug/kg	840	740 U	ug/kg	740	ug/kg	740	840	ug/kg	740	740

MAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

PESTICIDES/PCBS (SV-B46, 8080)

ug/kg											
aldrin-BHC	1.6 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
beta-BHC	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
delta-BHC	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
gamma-BHC (lindane)	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
heptachlor	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
aldrin	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
heptachlor epoxide	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
Endosulfan I	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
Dieldrin	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
4,4-DDE	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
Endrin	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
Endosulfan II	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
4,4-DDD	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
Endosulfan sulfate	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
4,4-DDT	3.4 U	ug/kg	3.4	3 U	ug/kg	3	3 U	ug/kg	3		
Methoxychlor	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
Endrin aldehyde	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
Endrin ketone	1.6 U	ug/kg	1.6	1.5 U	ug/kg	1.5	1.5 U	ug/kg	1.5		
Chlordane	8.5 U	ug/kg	8.5	7.6 U	ug/kg	7.6	7.5 U	ug/kg	7.5		
Chlorobenzilate	34 U	ug/kg	51	23 U	ug/kg	23	23 U	ug/kg	23		
Dilulate	51 U	ug/kg	42	45 U	ug/kg	45	45 U	ug/kg	45		
Toxaphene	42 U	ug/kg	42	37 U	ug/kg	37	37 U	ug/kg	37		
Isochlor	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
Kepona	51 U	ug/kg	51	45 U	ug/kg	45	45 U	ug/kg	45		
Arcochlor-1016	42 U	ug/kg	42	37 U	ug/kg	37	37 U	ug/kg	37		
Arcochlor-1221	.85 U	ug/kg	.85	.76 U	ug/kg	.76	.75 U	ug/kg	.75		
Arcochlor-1232	85 U	ug/kg	85	76 U	ug/kg	76	75 U	ug/kg	75		
Arcochlor-1242	42 U	ug/kg	42	37 U	ug/kg	37	37 U	ug/kg	37		
Arcochlor-1248	42 U	ug/kg	42	37 U	ug/kg	37	37 U	ug/kg	37		
Arcochlor-1254	20 U	ug/kg	20	18 U	ug/kg	18	18 U	ug/kg	18		
Arcochlor-1260	20 U	ug/kg	20	18 U	ug/kg	18	18 U	ug/kg	18		

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

R8271008  
RFA DATA  
198S001  
30-JUN-94

R8271009  
RFA DATA  
198S001D  
30-JUN-94

R8271010  
RFA DATA  
198S002  
30-JUN-94

R8271011  
RFA DATA  
198S003  
30-JUN-94

PESTICIDES/PCBs (SU-646,8090)

ug/kg

alpha-BHC	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	-81 U	ug/kg	81
beta-BHC	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
gamma-BHC (Lindane)	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Heptachlor	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Aldrin	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Heptachlor epoxide	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Endosulfan I	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Dieldrin	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
4,4'-DDE	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Endrin	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
Endosulfan II	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
4,4'-DND	2.5 U	ug/kg	2.5	7.6 U	ug/kg	7.6	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
4,4'-DDT	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
Methoxychlor	3 U	ug/kg	3	3 U	ug/kg	3	2.8 U	ug/kg	2.8	3.3 U	ug/kg	3.3
Endrin aldehyde	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
Endrin ketone	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4	1.6 U	ug/kg	1.6
Chlordane	7.4 U	ug/kg	7.4	7.5 U	ug/kg	7.5	7 U	ug/kg	7	8.1 U	ug/kg	8.1
Chlorobenzilate	22 U	ug/kg	22	22 U	ug/kg	22	21 U	ug/kg	21	24 U	ug/kg	24
Diallate	44 U	ug/kg	44	45 U	ug/kg	45	42 U	ug/kg	42	48 U	ug/kg	48
Toxaphene	37 U	ug/kg	37	37 U	ug/kg	37	35 U	ug/kg	35	40 U	ug/kg	40
Isodrin	74 U	ug/kg	74	-75 U	ug/kg	75	7 U	ug/kg	7	81 U	ug/kg	81
Kepon	44 U	ug/kg	44	45 U	ug/kg	45	42 U	ug/kg	42	48 U	ug/kg	48
Aroclor-1016	37 U	ug/kg	37	37 U	ug/kg	37	35 U	ug/kg	35	40 U	ug/kg	40
Aroclor-1221	74 U	ug/kg	74	75 U	ug/kg	75	70 U	ug/kg	70	81 U	ug/kg	81
Aroclor-1232	74 U	ug/kg	74	75 U	ug/kg	75	70 U	ug/kg	70	81 U	ug/kg	81
Aroclor-1242	37 U	ug/kg	37	37 U	ug/kg	37	35 U	ug/kg	35	40 U	ug/kg	40
Aroclor-1248	37 U	ug/kg	37	37 U	ug/kg	37	35 U	ug/kg	35	40 U	ug/kg	40
Aroclor-1254	18 U	ug/kg	18	18 U	ug/kg	18	17 U	ug/kg	17	19 U	ug/kg	19
Aroclor-1260	18 U	ug/kg	18	18 U	ug/kg	18	17 U	ug/kg	17	19 U	ug/kg	19

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

MAVSTA MAYPORT  
RFA Boring Soil Data

Lab Sample Number:

Site

Locator

Collect Date:

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL

BKG SOILS METALS

mg/kg											
Antimony	1.3 U	mg/kg	1.3	1.1 U	mg/kg	1.1	1.1 U	mg/kg	1.1		
Arsenic	1.3 J	mg/kg		.65 J	mg/kg		.65 J	mg/kg			
Barium	2.1 J	mg/kg		5.3 J	mg/kg		5.3 J	mg/kg			
Beryllium	.08 U	mg/kg	.08	.12 J	mg/kg		.12 J	mg/kg			
Cadmium	.25 U	mg/kg	.25	.22 U	mg/kg		.22 U	mg/kg			
Chromium	.78 U	mg/kg	.78	5.7 U	mg/kg		5.7 U	mg/kg			
Cobalt	.9 J	mg/kg		.77 J	mg/kg		.77 J	mg/kg			
Copper	.17 U	mg/kg	.17	.15 U	mg/kg		.15 U	mg/kg			
Cyanide	.04 M	mg/kg		3.1	mg/kg		3.1	mg/kg			
Lead	.04 U	mg/kg	.04	.03 U	mg/kg		.03 U	mg/kg			
Mercury	1.5 U	mg/kg	1.5	1.3 U	mg/kg		1.3 U	mg/kg			
Nickel	.15 U	mg/kg	.15	.16	mg/kg		.13 U	mg/kg			
Selenium	.53 U	mg/kg	.53	.47 U	mg/kg		.47 U	mg/kg			
Silver	.15 U	mg/kg	.15	.14 U	mg/kg		.14 U	mg/kg			
Thallium	6.7 U	mg/kg	6.7	5.8 U	mg/kg		6.2 U	mg/kg			
Tin	2.1 J	mg/kg		1.9 J	mg/kg		2.7 J	mg/kg			
Vanadium	7.9	mg/kg		5.9 U	mg/kg		5.4 U	mg/kg			
Zinc		mg/kg			mg/kg			mg/kg			

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSIA MAYPORT  
RFA Boring Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

VALUE	R8271008
	RFADATA
	198S001
	30-JUN-94
	QUAL UNITS

D.L.

RFADATA	R8271009
198S001D	
30-JUN-94	
QUAL UNITS	VALUE

DL

RFADATA	1985002	30-JUN-94	QUAL UNITS
R8271010			VALUE

19

VALUE	QUAL	UNITS
RB271011	RFADATA	
19BS003		
30-JUN-94		

10

## BACK SOILS METALS

mg/kg

[illegible]

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

Lab Sample Number:

Site  
Locator  
Collect Date:

RFADATA	30-JUN-94	QUAL UNITS
19SD001		
R8272001		VALUE

R8272002	RFADATA	19SD001D	30-JUN-94	QUAL UNITS
VALUE				

R8272003  
RFADATA  
19SD002  
30-JUN-96  
QUAL UNITS  
VALUE

VALUE	QUAL	UNITS
R8272004		
RFADATA		
19SD003		
30-JUN-94		

3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

6 UJ	ug/kg
130 UJ	ug/kg
-	ug/kg
6 U	ug/kg
13 U	ug/kg
13 UJ	ug/kg
150 UJ	ug/kg
13 U	ug/kg

13 13 6

6 U	ug/k
120 U	ug/k
-	ug/k
6 U	ug/k
12 U	ug/k
12 U	ug/k
120 U	ug/k
12 U	ug/k

[illegible]

0 UJ	UG/KG
120 UJ	UG/KG
-	UG/KG
6 U	UG/KG
12 U	UG/KG
12 UJ	UG/KG
120 UJ	UG/KG
12 U	UG/KG

12 12 6



# NAVSTA MAYPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

Lab Sample Number:				88272001				88272002				88272003				88272004			
Site				RFADATA				RFADATA				RFADATA				RFADATA			
Locator				19SD001				19SD001D				19SD002				19SD003			
Collect Date:				30-JUN-94				30-JUN-94				30-JUN-94				30-JUN-94			
VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG VOCs (8240+11)																			
Chloroethane	13	U		13	U	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Bromoethane	13	U		13	U	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Vinyl chloride	13	U		13	U	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Chloroethene	13	U		13	U	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Methylene chloride	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	31	UJ		31	UJ	ug/kg	6	12	UJ	ug/kg	6	16	UJ	ug/kg	6	12	UJ	ug/kg	6
Carbon disulfide	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane (total)	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U		6	U	ug/kg	6	12	R	ug/kg	6	12	R	ug/kg	6	12	R	ug/kg	6
2-Butene	13	R		13	R	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,1-Trichloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	13	UJ		13	UJ	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6
2-Hexanone	13	UJ		13	UJ	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6
Tetrachloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	UJ		6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6
Toluene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichlorofluoromethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,3-Dichlorobenzene	840	U		840	U	ug/kg	6	120	R	ug/kg	6	120	R	ug/kg	6	120	R	ug/kg	6
Acrolein	130	R		130	R	ug/kg	13	120	U	ug/kg	12	120	U	ug/kg	12	120	U	ug/kg	12
Isodurethane	130	UJ		130	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,4-Dichlorobenzene	840	U		840	U	ug/kg	6	120	UJ	ug/kg	6	120	UJ	ug/kg	6	120	UJ	ug/kg	6
Acrylonitrile	130	UJ		130	UJ	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Dibromomethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichlorobenzene	6	U		6	U	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6	12	UJ	ug/kg	6
2-Chloroethylvinylether	13	UJ		13	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6
Ethyl methacrylate	6	UJ		6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6
trans-1,4-Dichloro-2-butene	6	UJ		6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6	6	UJ	ug/kg	6
Isobutyl alcohol	240	R		240	R	ug/kg	6	240	R	ug/kg	6	240	R	ug/kg	6	240	R	ug/kg	6
1,1,1,2-Tetrachloroethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dibromo-3-chloropropane	13	U		13	U	ug/kg	13	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
1,2-Dibromomethane	6	U		6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,4-Dioxane	240	R		240	R	ug/kg	6	240	R	ug/kg	6	240	R	ug/kg	6	240	R	ug/kg	6

# NAVSAT MAYPORT RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Di-n-butylphthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Fluoranthene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Pyrene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Butylbenzylphthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
3,3'-di-chlorobenzidine	1700 U	ug/kg	1700	1600 U	ug/kg	1600	1500 U	ug/kg	1600 U	ug/kg	1600					
Benz(a)anthracene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Chrysene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
bio(2-ethylhexyl)phthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Di-n-octylphthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Benz(b)fluoranthene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Benz(k)fluoranthene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Benz(a)pyrene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Indeno(1,2,3-cd)pyrene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Dibenz(a,h)anthracene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Benzof(a,h,i)perylene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
2-picoline	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
Methyl methanesulphonate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Ethyl methanesulphonate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Acetophenone	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
N-tetrasopiperidine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Phenyl-tert-butylamine	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
2,6-Dichlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
N-tetraso-di-n-butylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
N-tetraso-diethylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
N-tetrasopropylidene	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
Benzidine	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
1,2,4,5-Tetrachlorobenzene	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
Pentachlorobenzene	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
1-Naphthylamine	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
2-Naphthylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
2,3,4,6-Tetrachlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Phenacetin	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
4-Aminobiphenyl	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
Pentachloronitrobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Proxamide	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
p-(10-methylamino)azobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
7,12-Dimethylbenz(a)Anthracene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
3-Methylcholanthrene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Pyridine	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
N-tetraso-diethylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
N-tetraso-morpholine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
o-Toluidine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
Hexachloro-cyclopentadiene	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
p-Phenylene diamine	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					
Safrole	8600 U	ug/kg	8600	7900 U	ug/kg	7900	7800 U	ug/kg	8000 U	ug/kg	8000					
1,4-Naphthoquinone	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
1,3-Dinitrobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
5-Nitro-o-toluidine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
1,3,5-Trinitrobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	800 U	ug/kg	800					
4-Nitroquinoline-1-oxide	4200 U	ug/kg	4200	3800 U	ug/kg	3800	3600 U	ug/kg	3900 U	ug/kg	3900					



NAVSIA MATPORT  
RFA Sediment Data

Lab Sample Number:

Site

Collector Date:

VALUE

R8272001  
RFADATA  
19SD001  
30-JUN-94

QUAL UNITS

DL

VALUE

R8272002  
RFADATA  
19SD001D  
30-JUN-94

QUAL UNITS

DL

VALUE

R8272003  
RFADATA  
19SD002  
30-JUN-94

QUAL UNITS

DL

VALUE

R8272004  
RFADATA  
19SD003  
30-JUN-94

QUAL UNITS

DL

ug/kg

BK6 SYOC (R270-24)	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
N-Mitrosodimethylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Phenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Aniline	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Bis (2-Chloroethyl) ether	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
1,3-Dichlorobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
1,4-Dichlorobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Benzyl Alcohol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
1,2-Dichlorobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2-Nitrophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Bis(2-Chloroisopropyl) ether	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
N-Mitroso-di-n-propylamine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Hexachloroethane	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Mitochondria	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Isophorone	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2-Nitrophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4-Dimethylphenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Benzoic acid	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Bis(2-Chloroethoxy)methane	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4-Dichlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
1,2,4-Trichlorobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Naphthalene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Chloroaniline	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Hexachlorobutadiene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Chloro-3-methylphenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2-Methylnaphthalene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Hexachlorocyclopentadiene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4,6-Trichlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Dimethylphthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4,5-Trichlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2-Chloronaphthalene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2-Nitroaniline	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Acenaphthylene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,6-Dinitrotoluene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
3-Mitroaniline	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Acenaphthene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4-Dinitrophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Mitrophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Dibenzofuran	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
2,4-Dinitrotoluene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Diethylphthalate	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Chlorophenyl-phenyl ether	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Fluorene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Nitroaniline	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4,6-Dinitro-2-methylphenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
N-Mitrosodimethylamine (1)	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
1,2-Diphenylhydrazine	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
4-Bromophenyl-phenyl ether	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Hexachlorobenzene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Pentachlorophenol	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800
Phenanthrene	860 U	ug/kg	860	790 U	ug/kg	790	780 U	ug/kg	780	800 U	ug/kg	800

NAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

PESTICIDES/PCBs (SU-846,8000)	ug/kg	R8272001				R8272002				R8272003				R8272004			
		RFADATA	19SD0001	30-JUN-94	DL	RFADATA	19SD0010	30-JUN-94	DL	RFADATA	19SD0002	30-JUN-94	DL	RFADATA	19SD0003	30-JUN-94	DL
alpha-BHC	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
beta-BHC	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
gamma-BHC (Lindane)	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Heptachlor	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Aldrin	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Heptachlor epoxide	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endosulfen I	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Dieldrin	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
4,4-DDE	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endrin	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endosulfen II	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
4,4-DDD	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endosulfen sulfate	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
4,4-DDT	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Methoxychlor	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endrin aldehyde	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Endrin ketone	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Chlordane	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Chlorobenzilate	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Diallate	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Toxaphene	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Isoflin	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Kepon	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1016	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1221	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1232	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1242	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1246	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1254	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6
Arcochlor-1260	.87 U	ug/kg	.87	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.79 U	ug/kg	.81 U	ug/kg	.81	1.6

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED

Lab Sample Number: \_\_\_\_\_  
 Site Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

RFADATA	RFADATA
19SD001	19SD001
30-JUN-94	30-JUN-94
QUAL UNITS	QUAL UNITS
VALUE	VALUE

VALUE	D
R8272002	
RFADATA	
19SD001D	
30-JUN-94	
QUAL UNITS	

VALUE	QUAL	UNITS	DL
R8272003			
RFADATA			
19SD002			
30-JUN-94			

VALUE	QUAL	UNITS	DI
RB2/2006			
RFADATA			
19SD003			
30-JUN-96			

Methacrylène  
 3,3'-Diméthylbenzidine  
 Hexachlorophène  
 Acramite  
 2-Chlorophénol  
 3- & 4-Méthylphénol (2)  
 4-Méthylphénol  
 Diphenylamine  
 Hexachlorocyclopène  
 Hexachloroépoxyène  
 2-Acétylanilinofluorène

[illegible]

3800 UJ	ug/kg
790 UJ	ug/kg
38000 UJ	ug/kg
3800 U	ug/kg
790 U	ug/kg
790 U	ug/kg
-	ug/kg
-	ug/kg
3800 U	ug/kg
790 U	ug/kg

3600 U	ug/kg
760 U	ug/kg
38000 U	ug/kg
3800 U	ug/kg
760 U	ug/kg
-	ug/kg
-	ug/kg
3800 U	ug/kg
760 U	ug/kg

3900 UJ	ug/kg
800 UJ	ug/kg
39000 UJ	ug/kg
3900 U	ug/kg
800 U	ug/kg
800 U	ug/kg
-	ug/kg
-	ug/kg
3900 U	ug/kg
800 U	ug/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE STQC (8270) ANALYTICAL RUN

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8709001  
RFADATA  
08MW010SD  
09-SEP-94

R8627003  
RFADATA  
08MW009S  
26-AUG-94

R7490005  
RFADATA  
08MW008S  
09-JUL-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

Methapyrilene  
3,3'-Dimethylbenzidine  
Hexachlorophene  
Aramite  
2-Chlorophenol  
3- & 4-Methylphenol (2)  
4-Methylphenol  
Diphenylamine  
Hexachloropropene  
2-Acetylaminofluorene

10  
10  
10  
10  
10  
10  
10  
10  
10  
10

50 UJ  
10 U  
500 R  
50 UJ  
10 U  
10 U  
-  
-  
50 UJ  
10 U

ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l

10  
10  
10  
10  
10  
10  
10  
10  
10  
10

50 UJ  
10 U  
500 R  
50 UJ  
10 U  
10 U  
-  
-  
50 UJ  
10 U

ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l

400  
80  
400  
80  
400  
80  
400  
80  
400  
80

400 U  
80 U  
4000 UJ  
400 U  
80 U  
480  
-  
-  
400 U  
80 U

ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l

10  
50  
10  
10  
10  
50  
10

50 UJ  
10 U  
500 R  
50 U  
10 U  
10 U  
-  
-  
50 U  
10 U

ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l  
ug/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7490005  
RFADATA  
08M0008S  
09-JUL-94

R8627003  
RFADATA  
08M0009S  
26-AUG-94

R8709001  
RFADATA  
08M010S  
09-SEP-94

R8709002  
RFADATA  
08M010SD  
09-SEP-94

## PESTICIDES/PCBs (SV-846,8080)

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
alpha-BHC	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
beta-BHC	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
delta-BHC	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
gamma-BHC (lindane)	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Heptachlor	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Aldrin	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Heptachlor epoxide	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Endosulfen I	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Dieldrin	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
4,4-DDE	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Endrin	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Endosulfen II	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
4,4-DDD	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Endosulfen sulfate	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
4,4-DDT	.08 U	U	ug/l	.08	.08 U	U	ug/l	.08	.08 U	U	ug/l	.08	.08 U	U	ug/l	.08
Methoxychlor	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Endrin aldehyde	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Endrin ketone	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Chlordane	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04	.04 U	U	ug/l	.04
Chlorobenzilate	.2 U	U	ug/l	.2	.2 U	U	ug/l	.2	.2 U	U	ug/l	.2	.2 U	U	ug/l	.2
Diallate	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5
Toxaphene	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1
Isodrin	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02	.02 U	U	ug/l	.02
Repone	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1
Aroclor-1016	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1
Aroclor-1221	2 U	U	ug/l	2	2 U	U	ug/l	2	2 U	U	ug/l	2	2 U	U	ug/l	2
Aroclor-1232	2 U	U	ug/l	2	2 U	U	ug/l	2	2 U	U	ug/l	2	2 U	U	ug/l	2
Aroclor-1242	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1
Aroclor-1248	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1	1 U	U	ug/l	1
Aroclor-1254	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5
Aroclor-1260	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5	.5 U	U	ug/l	.5

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (R270) ANALYTICAL RUN.

Lab Sample Number: \_\_\_\_\_  
 Site Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

[illegible]



**NAVSTA MAYPORT**

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

Lab Sample Number: Site Locator	Collect Date:	M7490005 RFADATA 08MW008S 09-JUL-94	R8627003 RFADATA 08MW009S 26-AUG-94	R8709001 RFADATA 08MW010S 09-SEP-94	R8709002 RFADATA 08MW010SD 09-SEP-94				
		VALUE	DL	VALUE	DL	VALUE	DL	VALUE	DL
Anthracene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Di-n-Butylphthalate		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Fluoranthene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Pyrene		10 U	ug/l	10	80 U	ug/l	80	10 UJ	ug/l
Butylbenzylphthalate		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
3,3'-Dichlorobenzidins		20 U	ug/l	20	160 U	ug/l	160	20 U	ug/l
Benzo(a)anthracene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Chrysene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
bis(2-Ethylhexyl)phthalate		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Di-n-octylphthalate		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Benzo(b)fluorenone		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Benzo(k)fluorenone		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Benzo(a)pyrene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Indeno(1,2,3-cd)pyrene		10 UJ	ug/l		80 U	ug/l	80	10 U	ug/l
Dibenz(e,h)anthracene		10 UJ	ug/l		80 U	ug/l	80	10 U	ug/l
Benzo(g,h,i)perylene		10 UJ	ug/l		80 U	ug/l	80	10 U	ug/l
2-Picoline		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Methyl methanesulfonate		10 U	ug/l	10	80 U	ug/l	80	10 UJ	ug/l
Ethyl methanesulfonate		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Acetophenone		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitrosopiperidine		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Phenyl-tert-butylamine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
2,6-Dichlorophenol		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitroso-di-n-butylamine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitrosodiethylamine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitrosopyrrolidine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Benzidine		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
1,2,4,5-Tetrachlorobenzene		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Pentachlorobenzene		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
1-Methylaniline		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
2-Methylaniline		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
2,3,4,6-Tetrachlorophenol		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Phenacetin		50 UJ	ug/l		400 U	ug/l	400	50 U	ug/l
4-Alminobiphenyl		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Pentachloronitrobenzene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
Pronamide		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
p-(Dimethylamino)azobenzene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
7,12-Dimethylbens(A)Anthracene		10 UJ	ug/l		80 U	ug/l	80	10 U	ug/l
3-Methylcholanthrene		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Pyridine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitrosomethylethylamine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
N-Nitrosocyclopropane		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
o-Toluidine		50 U	ug/l	50	400 U	ug/l	400	50 UJ	ug/l
Hexachloropropene		500 U	ug/l	500	4000 U	ug/l	4000	500 U	ug/l
p-Phenylenediamine		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Safrole		50 U	ug/l	50	400 U	ug/l	400	50 U	ug/l
Isoeuprofen		1000 UJ	ug/l		8000 U	ug/l	8000	1000 U	ug/l
1,4-Naphthoquinone		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
1,3-Dinitrobenzene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
5-Nitro-o-toluidine		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
1,3,5-Trinitrobenzene		10 U	ug/l	10	80 U	ug/l	80	10 U	ug/l
4-Nitrosulfoline-1-oxide		500 UJ	ug/l		4000 U	ug/l	4000	500 R	ug/l

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8709002  
RFADATA  
08MW010SD  
09-SEP-94

R8709001  
RFADATA  
08MW010S  
09-SEP-94

R8627003  
RFADATA  
08MW009S  
26-AUG-94

M7490005  
RFADATA  
08MW008S  
09-JUL-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

BKG VOCs (B240+11)

Chloromethane

Bromomethane

Vinyl chloride

Chloroethane

Methylene chloride

Acetone

Carbon disulfide

1,1-Dichloroethane

1,1-Dichloroethane

1,2-Dichloroethane (total)

Chloroform

1,2-Dichloroethane

2-Butanone

1,1,1-Trichloroethane

Carbon tetrachloride

Bromodichloromethane

1,2-Dichloropropane

cis-1,3-Dichloropropene

Trichloroethene

Dibromochloromethane

1,1,2-Trichloroethane

Benzene

trans-1,3-Dichloropropene

Bromoform

4-Methyl-2-pentanone

2-Hexanone

Tetrachloroethene

1,1,2,2-Tetrachloroethane

Toluene

Chlorobenzene

Ethylbenzene

Styrene

Xylenes (total)

Trichlorofluoromethane

1,3-Dichlorobenzene

Acrolein

Iodomethane

1,4-Dichlorobenzene

Acrylonitrile

Dibromomethane

1,2-Dichlorobenzene

2-Chloroethylvinylether

Ethyl methacrylate

trans-1,4-Dichloro-2-butene

Isobutyl alcohol

1,1,1,2-Tetrachloroethane

1,2-Dibromo-3-chloropropane

1,4-Dioxane

ug/l

1

1

1

10

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5



NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7490005  
RFADATA  
08MM008S  
09-JUL-94

R8627003  
RFADATA  
08MM009S  
26-AUG-94

R8709001  
RFADATA  
08MM010S  
09-SEP-94

R8709002  
RFADATA  
08MM010SD  
09-SEP-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

3-Chloropropene	5 UJ	ug/l	10 U	ug/l	10	5 UJ	ug/l	100 U	ug/l	5 UJ	ug/l	100
Acetonitrile	100 UJ	ug/l	200 UJ	ug/l		100 U	ug/l		ug/l	100 U	ug/l	
Chloroprene	-	ug/l	-	ug/l		-	ug/l		ug/l	-	ug/l	
Methacrylonitrile	5 U	ug/l	10 UJ	ug/l	5	5 UJ	ug/l		ug/l	5 UJ	ug/l	
Methyl methacrylate	10 U	ug/l	20 UJ	ug/l	10	10 UJ	ug/l		ug/l	10 UJ	ug/l	
Pentachloroethane	10 UJ	ug/l	20 UJ	ug/l		10 UJ	ug/l		ug/l	10 UJ	ug/l	
Propionitrile	100 U	ug/l	200 UJ	ug/l	100	100 UJ	ug/l		ug/l	100 UJ	ug/l	
Vinyl acetate	10 UJ	ug/l	20 U	ug/l		10 U	ug/l	20	ug/l	10 U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA HAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705003  
RFADATA  
488S00205  
08-AUG-94

M7705005  
RFADATA  
488S00505  
08-AUG-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
-------	------	-------	----	-------	------	-------	----

## BKG SOILS METALS

mg/kg

Antimony	.57 U	mg/kg	.57	.47 U	mg/kg	.47
Arsenic	2.5 J	mg/kg		.68 J	mg/kg	
Barium	10.1 J	mg/kg		7 J	mg/kg	
Beryllium	.22 U	mg/kg	.22	.09 U	mg/kg	.09
Cadmium	.77 U	mg/kg	.77	.64 U	mg/kg	.64
Chromium	6.8 J	mg/kg		3.7	mg/kg	
Cobalt	.95 J	mg/kg		.57 U	mg/kg	.57
Copper	1 UJ	mg/kg		15.6 J	mg/kg	
Cyanide	.04 U	mg/kg	.04	.03 U	mg/kg	.03
Lead	6 J	mg/kg		3.5 J	mg/kg	
Mercury	.15 J	mg/kg		.07 UJ	mg/kg	
Nickel	2 J	mg/kg		2.3 J	mg/kg	
Selenium	.34 U	mg/kg	.34	.28 U	mg/kg	.28
Silver	.53 U	mg/kg	.53	.44 U	mg/kg	.44
Thallium	.33 UJ	mg/kg		.28 UJ	mg/kg	
Tin	3 J	mg/kg		2.6 J	mg/kg	
Vanadium	6.4 J	mg/kg		2 J	mg/kg	
Zinc	5.1 U	mg/kg	5.1	10 J	mg/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

Lab Sample Number:  
Site  
Locator  
Collect Date:

NAVSTA MAYPORT  
RFA Soil Boring Data

M7705003  
RFADATA  
488S00205  
08-AUG-94

M7705005  
RFADATA  
488S00505  
08-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrillene	1900	UJ	ug/kg		1700	UJ	ug/kg	
3,3'-Dimethylbenzidine	380	U	ug/kg	380	350	U	ug/kg	350
Hexachlorophene	19000	R	ug/kg		17000	R	ug/kg	
Arenite	1900	U	ug/kg	1900	1700	U	ug/kg	1700
2-Chlorophenol	380	U	ug/kg	380	350	U	ug/kg	350
3- & 4-Methylphenol (2)	380	U	ug/kg	380	350	U	ug/kg	350
4-Methylphenol	-				-			
Diphenylamine	-				-			
Hexachloropropene	1900	U	ug/kg	1900	1700	U	ug/kg	1700
2-Acetylnaphthofluorene	380	U	ug/kg	380	350	U	ug/kg	350

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705003  
RFADATA  
488S00205  
08-AUG-94

M7705005  
RFADATA  
488S00505  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

## PESTICIDES/PCBS (SU-846,8080)

ug/kg

alpha-BHC	.76 U	ug/kg	.76	.71 U	ug/kg	.71
beta-BHC	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
delta-BHC	.76 U	ug/kg	.76	.71 U	ug/kg	.71
gamma-BHC (Lindane)	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Heptachlor	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Aldrin	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Heptachlor epoxide	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Endosulfan I	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Chlordane	.76 U	ug/kg	.76	.71 U	ug/kg	.71
4,4-DDE	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Endrin	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
Endosulfan II	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
4,4-DDD	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
Endosulfan sulfate	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
4,4-DDT	3.1 U	ug/kg	3.1	2.8 U	ug/kg	2.8
Methoxychlor	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
Endrin aldehyde	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
Endrin ketone	1.5 U	ug/kg	1.5	1.4 U	ug/kg	1.4
Chlordane	7.6 U	ug/kg	7.6	7.1 U	ug/kg	7.1
Chlorobenzilate	23 U	ug/kg	23	21 U	ug/kg	21
Dieldrin	45 U	ug/kg	45	42 U	ug/kg	42
Toxaphene	38 U	ug/kg	38	35 U	ug/kg	35
Isoodrin	.76 U	ug/kg	.76	.71 U	ug/kg	.71
Kepona	45 UJ	ug/kg		42 UJ	ug/kg	
Aroclor-1016	38 U	ug/kg	38	35 U	ug/kg	35
Aroclor-1221	76 U	ug/kg	76	71 U	ug/kg	71
Aroclor-1232	76 U	ug/kg	76	71 U	ug/kg	71
Aroclor-1242	38 U	ug/kg	38	35 U	ug/kg	35
Aroclor-1248	38 U	ug/kg	38	35 U	ug/kg	35
Aroclor-1254	19 U	ug/kg	19	18 U	ug/kg	18
Aroclor-1260	19 U	ug/kg	19	18 U	ug/kg	18

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705003  
RFADATA  
48BS00205  
08-AUG-94

M7705005  
RFADATA  
48BS00505  
08-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	380	U	ug/kg	380	350	U	ug/kg	350
Di-n-Butylphthalate	380	U	ug/kg	380	350	U	ug/kg	350
Fluoranthene	380	U	ug/kg	380	350	U	ug/kg	350
Pyrene	380	U	ug/kg	380	350	U	ug/kg	350
Butylbenzylphthalate	380	U	ug/kg	380	350	U	ug/kg	350
3,3'-Dichlorobenzidine	760	U	ug/kg	760	700	U	ug/kg	700
Benzo(a)anthracene	380	U	ug/kg	380	350	U	ug/kg	350
Chrysene	380	U	ug/kg	380	350	U	ug/kg	350
bis(2-Ethylhexyl)phthalate	380	U	ug/kg	380	350	U	ug/kg	350
Di-n-octylphthalate	380	U	ug/kg	380	350	U	ug/kg	350
Benzo(b)fluoranthene	380	U	ug/kg	380	350	U	ug/kg	350
Benzo(k)fluoranthene	380	U	ug/kg	380	350	U	ug/kg	350
Benzo(a)pyrene	380	U	ug/kg	380	350	U	ug/kg	350
Indeno(1,2,3-cd)pyrene	380	U	ug/kg	380	350	U	ug/kg	350
Dibenz(a,h)anthracene	380	U	ug/kg	380	350	U	ug/kg	350
Benzo(g,h,i)perylene	380	U	ug/kg	380	350	U	ug/kg	350
2-picoline	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Methyl methanesulfonate	380	U	ug/kg	380	350	U	ug/kg	350
Ethyl methanesulfonate	380	U	ug/kg	380	350	U	ug/kg	350
Acetophenone	380	U	ug/kg	380	350	U	ug/kg	350
N-Nitrosodiphenylamine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Phenyl-tert-butylamine	380	U	ug/kg	380	350	U	ug/kg	350
2,6-Dichlorophenol	380	U	ug/kg	380	350	U	ug/kg	350
N-Nitroso-di-n-butylamine	380	U	ug/kg	380	350	U	ug/kg	350
N-Nitrosodiethylamine	380	U	ug/kg	380	350	U	ug/kg	350
N-Nitrosopyrrolidine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Benazidine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
1,2,4,5-Tetrachlorobenzene	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Pentachlorobenzene	1900	U	ug/kg	1900	1700	U	ug/kg	1700
1-Naphthylamine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
2-Naphthylamine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
2,3,4,6-Tetrachlorophenol	380	U	ug/kg	380	350	U	ug/kg	350
Phenacetin	380	U	ug/kg	380	350	U	ug/kg	350
4-Aminobiphenyl	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Pentachloronitrobenzene	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Protonamide	380	U	ug/kg	380	350	U	ug/kg	350
p-(Dimethylamino)azobenzene	380	U	ug/kg	380	350	U	ug/kg	350
7,12-Dimethylbenz(A)Anthracene	380	U	ug/kg	380	350	U	ug/kg	350
5-Methylcholanthrene	380	U	ug/kg	380	350	U	ug/kg	350
Pyridine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
N-Nitrosomethylethylamine	380	U	ug/kg	380	350	U	ug/kg	350
N-Nitrosomorpholine	380	U	ug/kg	380	350	U	ug/kg	350
o-Toluidine	380	U	ug/kg	380	350	U	ug/kg	350
Hexachloropropene	1900	U	ug/kg	1900	1700	U	ug/kg	1700
p-Phenylenediamine	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Safrole	1900	U	ug/kg	1900	1700	U	ug/kg	1700
Isosafrole	1900	U	ug/kg	1900	1700	U	ug/kg	1700
1,4-Naphthoquinone	380	U	ug/kg	380	350	U	ug/kg	350
1,3-Dinitrobenzene	380	U	ug/kg	380	350	U	ug/kg	350
5-Nitro-o-toluidine	380	U	ug/kg	380	350	U	ug/kg	350
1,3,5-Trinitrobenzene	380	U	ug/kg	380	350	U	ug/kg	350
4-Nitroquinoline-1-oxide	1900	U	ug/kg	1900	1700	U	ug/kg	1700

**NA: HAYPORT**

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7705003  
 RFADATA  
 48BS00205  
 08-AUG-94

H7705005  
 RFADATA  
 48BS00505  
 08-AUG-94

BKG VOCs (8240+11)  
 Chloromethane  
 Bromomethane  
 Vinyl chloride  
 Chloroethane  
 Methylene chloride  
 Acetone  
 Carbon disulfide  
 1,1-Dichloroethane  
 1,1-Dichloroethane  
 1,2-Dichloroethane (total)  
 Chloroform  
 1,2-Dichloroethane  
 2-Butanone  
 1,1,1-Trichloroethane  
 Carbon tetrachloride  
 Bromodichloromethane  
 1,2-Dichloropropane  
 cis-1,3-Dichloropropene  
 Trichloroethene  
 Dibromochloromethane  
 1,1,2-Trichloroethane  
 Benzene  
 trans-1,3-Dichloropropene  
 Bromoform  
 4-Methyl-2-pentanone  
 2-Hexanone  
 Tetrachloroethene  
 1,1,2,2-Tetrachloroethane  
 Toluene  
 Chlorobenzene  
 Ethylbenzene  
 Styrene  
 Xylenes (total)  
 Trichlorofluoromethane  
 1,3-Dichlorobenzene  
 Acrolein  
 Isodimethane  
 1,4-Dichlorobenzene  
 Acrylonitrile  
 Dibromomethane  
 1,2-Dichlorobenzene  
 2-Chloroethylvinylether  
 Ethyl methacrylate  
 1,2,3-Trichloropropene  
 trans-1,4-Dichloro-2-butene  
 Isobutyl alcohol  
 1,1,2,2-Tetrachloroethane  
 1,2-Dibromo-3-chloropropane  
 1,2-Dibromomethane  
 1,4-Dioxane

[illegible]

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705003  
RFADATA  
488S00205  
08-AUG-94

M7705005  
RFADATA  
488S00505  
08-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3-Chloropropene	5 U	110 U	ug/kg	5	5 U	110 U	ug/kg	5
Acetonitrile	110 U	-	ug/kg	110	110 U	-	ug/kg	110
Chloroprene	5 U	11 U	ug/kg	5	5 U	11 U	ug/kg	5
Methacrylonitrile	11 U	11 U	ug/kg	11	11 U	11 U	ug/kg	11
Methyl methacrylate	11 U	11 U	ug/kg	11	11 U	11 U	ug/kg	11
Pentachloroethane	110 U	110 U	ug/kg	110	110 U	110 U	ug/kg	110
Propionitrile	11 U	11 U	ug/kg	11	11 U	11 U	ug/kg	11
Vinyl acetate								

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



Lab Sample Number:  
Site  
Locator  
Collect Date:

STA MAYPORT  
face Soil Data

Rf.

M7705001  
RFADATA  
48SS00101  
08-AUG-94

M7705002  
RFADATA  
48SS00201  
08-AUG-94

M7705006  
RFADATA  
48SS00301  
08-AUG-94

M7705007  
RFADATA  
48SS00401  
08-AUG-94

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

BKG. SOILS METALS

Antimony  
Arsenic  
Barium  
Beryllium  
Cadmium  
Chromium  
Cobalt  
Copper  
Cyanide  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Tin  
Vanadium  
Zinc

mg/kg

.46 U  
.31 J  
5 J  
.09 U  
.63 U  
2.4  
.56 U  
1.4 U  
.03 U  
2.9 U  
.08 UJ  
1.5 U  
.28 U  
.43 U  
.27 UJ  
2.0 J  
2.1 J  
2.5 U

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

.46  
.09  
.63  
.56  
1.4  
.03  
2.9  
1.5  
.28  
.43  
2.5

.78 J  
.23 J  
5.2 J  
.04 U  
.64 U  
2.8  
.56 U  
2.7 U  
.04 J  
3.8 J  
.08 UJ  
1.5 U  
.28 U  
.44 U  
.29 J  
2.7 J  
2.2 J  
2.1 U

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

.04  
.64  
.56  
2.7  
1.5  
.28  
.44  
2.1

.47 U  
.28 J  
6.1 J  
.06 U  
.64 U  
3.1  
.56 U  
.84 UJ  
.04 J  
2.7 U  
.08 UJ  
1.5 U  
.28 U  
.44 U  
2.7 UJ  
2.6 J  
7.1 J

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

.47  
.06  
.64  
.56  
2.7  
1.5  
.28  
.44

.46 U  
.48 J  
8.8 J  
.21 U  
.63 U  
5.2  
.57 J  
.98 U  
.03 U  
7.5 J  
.08 UJ  
1.5 U  
.28 U  
.43 U  
.27 UJ  
2 U  
4.7 J  
8.1 J

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

.46  
.21  
.63  
.98  
.03  
1.5  
.28  
.43  
2

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Date

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS004010  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

## BKG SOILS METALS

Antimony	mg/kg	.46 UJ	mg/kg	.47 U	mg/kg	.47
Arsenic	mg/kg	.54 J	mg/kg	.7 J	mg/kg	
Barium	mg/kg	7.7 J	mg/kg	5.1 J	mg/kg	
Beryllium	mg/kg	.12 U	mg/kg	.12 U	mg/kg	.12
Cadmium	mg/kg	.63 U	mg/kg	.64 U	mg/kg	.64
Chromium	mg/kg	4	mg/kg	3	mg/kg	
Cobalt	mg/kg	.56 U	mg/kg	.57 U	mg/kg	.57
Copper	mg/kg	16.1 J	mg/kg	1.2 U	mg/kg	1.2
Cyanide	mg/kg	.03 U	mg/kg	.03 U	mg/kg	.03
Lead	mg/kg	2.9 U	mg/kg	1.8 U	mg/kg	1.8
Mercury	mg/kg	.08 UJ	mg/kg	.08 J	mg/kg	
Nickel	mg/kg	3.6 J	mg/kg	1.5 U	mg/kg	1.5
Selenium	mg/kg	.28 U	mg/kg	.28 U	mg/kg	.28
Silver	mg/kg	.43 U	mg/kg	.44 U	mg/kg	.44
Thallium	mg/kg	.27 UJ	mg/kg	.27 UJ	mg/kg	
Tin	mg/kg	3 J	mg/kg	2.5 J	mg/kg	
Vanadium	mg/kg	2.9 J	mg/kg	3 J	mg/kg	
Zinc	mg/kg	14 J	mg/kg	4.5 U	mg/kg	4.5

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705001  
RFADATA  
48SS00101  
08-AUG-94

M7705002  
RFADATA  
48SS00201  
08-AUG-94

M7705006  
RFADATA  
48SS00301  
08-AUG-94

M7705007  
RFADATA  
48SS00401  
08-AUG-94

PESTICIDES/PCBs (SU-846,8080)

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
alpha-BHC	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
beta-BHC	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
delta-BHC	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
gamma-BHC (lindane)	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Heptachlor	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Aldrin	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Heptachlor epoxide	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Endosulfan I	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Dieldrin	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
4,4'-DDE	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Endrin	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Endosulfan II	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
4,4'-DDD	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Endosulfan sulfate	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
4,4'-DDT	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Methoxychlor	2.8	U	ug/kg	2.8	2.8	U	ug/kg	2.8	2.8	U	ug/kg	2.8	2.8	U	ug/kg	2.8
Endrin aldehyde	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Endrin ketone	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Chlordane	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4	1.4	U	ug/kg	1.4
Chlorobenzilate	7.1	U	ug/kg	7.1	7.1	U	ug/kg	7.1	7.1	U	ug/kg	7.1	7.1	U	ug/kg	7.1
Diallate	21	U	ug/kg	21	21	U	ug/kg	21	21	U	ug/kg	21	21	U	ug/kg	21
Toxaphene	42	U	ug/kg	42	42	U	ug/kg	42	42	U	ug/kg	42	42	U	ug/kg	42
Teodrin	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35
Kepon	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71	.71	U	ug/kg	.71
Aroclor-1016	42	UJ	ug/kg	42	42	UJ	ug/kg	42	42	UJ	ug/kg	42	42	UJ	ug/kg	42
Aroclor-1221	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35
Aroclor-1232	71	U	ug/kg	71	71	U	ug/kg	71	71	U	ug/kg	71	71	U	ug/kg	71
Aroclor-1242	71	U	ug/kg	71	71	U	ug/kg	71	71	U	ug/kg	71	71	U	ug/kg	71
Aroclor-1248	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35
Aroclor-1254	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35	35	U	ug/kg	35
Aroclor-1260	18	U	ug/kg	18	18	U	ug/kg	18	18	U	ug/kg	18	18	U	ug/kg	18

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS004010  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

## PESTICIDES/PCBs (SV-846,8080)

ug/kg

alpha-BHC	1.4 U	ug/kg	1.4	7.1 U	ug/kg	1.4
beta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
delta-BHC	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
gamma-BHC (lindane)	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Heptachlor	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Aldrin	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Heptachlor epoxide	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Endosulfan I	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Dieldrin	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
4,4-DDE	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan II	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4-DDT	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Methoxychlor	2.8 U	ug/kg	2.8	2.9 U	ug/kg	2.9
Endrin aldehyde	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endrin ketone	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Chlordane	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Chlorobenzilate	21 U	ug/kg	21	21 U	ug/kg	21
Dallate	42 U	ug/kg	42	43 U	ug/kg	43
Toxaphene	34 U	ug/kg	34	35 U	ug/kg	35
Ibodrin	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1
Kepon	42 UJ	ug/kg	42	42 UJ	ug/kg	42
Aroclor-1016	34 U	ug/kg	34	35 U	ug/kg	35
Aroclor-1221	70 U	ug/kg	70	71 U	ug/kg	71
Aroclor-1232	70 U	ug/kg	70	71 U	ug/kg	71
Aroclor-1242	34 U	ug/kg	34	35 U	ug/kg	35
Aroclor-1248	34 U	ug/kg	34	35 U	ug/kg	35
Aroclor-1254	18 U	ug/kg	18	18 U	ug/kg	18
Aroclor-1260	18 U	ug/kg	18	18 U	ug/kg	18

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS00401D  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	350 U	ug/kg		350	1800 U	ug/kg		1800
Fluorene	350 U	ug/kg		350	1800 U	ug/kg		1800
4-Nitroaniline	1700 UJ	ug/kg			8800 UJ	ug/kg		
4,6-Dinitro-2-methylphenol	1700 U	ug/kg		1700	8800 U	ug/kg		8800
N-Nitrosodiphenylamine (1)	350 U	ug/kg		350	1800 U	ug/kg		1800
1,2-Diphenylhydrazine	350 UJ	ug/kg			1800 UJ	ug/kg		
4-Bromophenyl-phenylether	350 U	ug/kg		350	1800 U	ug/kg		1800
Hexachlorobenzene	350 UJ	ug/kg			1800 UJ	ug/kg		
Pentachlorophenol	1700 U	ug/kg		1700	8800 U	ug/kg		8800
Phenanthrene	350 U	ug/kg		350	1800 U	ug/kg		1800
Anthracene	350 U	ug/kg		350	1800 U	ug/kg		1800
D1-n-Butylphthalate	350 U	ug/kg		350	1800 U	ug/kg		1800
Fluoranthene	32 J	ug/kg			1800 UJ	ug/kg		
Pyrene	32 J	ug/kg			1800 U	ug/kg		1800
Butylbenzylphthalate	350 U	ug/kg		350	1800 U	ug/kg		1800
3,3'-Dichlorobenzidine	690 U	ug/kg		690	3500 U	ug/kg		3500
Benzo(a)anthracene	26 J	ug/kg			1800 U	ug/kg		1800
Chrysene	30 J	ug/kg			1800 U	ug/kg		1800
Bis(2-Ethylhexyl)phthalate	350 U	ug/kg		350	1800 U	ug/kg		1800
Di-n-octylphthalate	350 U	ug/kg		350	1800 U	ug/kg		1800
Benzo(b)fluoranthene	21 J	ug/kg			1800 U	ug/kg		1800
Benzo(k)fluoranthene	16 J	ug/kg			1800 U	ug/kg		1800
Benzo(a)pyrene	350 U	ug/kg		350	1800 U	ug/kg		1800
Indeno(1,2,3-cd)pyrene	350 U	ug/kg		350	1800 U	ug/kg		1800
Dibenz(a,h)anthracene	350 U	ug/kg		350	1800 U	ug/kg		1800
Benzo(g,h,i)perylene	350 U	ug/kg		350	1800 U	ug/kg		1800
2-Picoline	1700 U	ug/kg		1700	8800 U	ug/kg		8800
Methyl methanesulfonate	350 U	ug/kg		350	1800 U	ug/kg		1800
Ethyl methanesulfonate	350 U	ug/kg		350	1800 U	ug/kg		1800
Acetophenone	350 U	ug/kg		350	1800 U	ug/kg		1800
N-Nitrosopiperidine	350 UJ	ug/kg			8800 UJ	ug/kg		
Phenyl-tert-butylamine	350 U	ug/kg		350	1800 U	ug/kg		1800
2,6-Dichlorophenol	350 U	ug/kg		350	1800 U	ug/kg		1800
N-Nitroso-dl-n-butylamine	350 U	ug/kg		350	1800 U	ug/kg		1800
N-Nitrosodiphenylamine	350 U	ug/kg		350	1800 U	ug/kg		1800
N-Nitrosopyrrolidine	350 U	ug/kg		350	1800 U	ug/kg		1800
Benzidine	1700 U	ug/kg		1700	8800 U	ug/kg		8800
1,2,4,5-Tetrachlorobenzene	1700 U	ug/kg		1700	8800 U	ug/kg		8800
Pentachlorobenzene	1700 U	ug/kg		1700	8800 U	ug/kg		8800
1-Naphthylamine	1700 U	ug/kg		1700	8800 U	ug/kg		8800
2-Naphthylamine	350 U	ug/kg		350	1800 U	ug/kg		1800
2,3,4,6-Tetrachlorophenol	350 UJ	ug/kg			1800 UJ	ug/kg		
Phenacetin	1700 U	ug/kg		1700	8800 U	ug/kg		8800
4-Aminobiphenyl	1700 U	ug/kg		1700	8800 U	ug/kg		8800
Pentachloronitrobenzene	350 U	ug/kg		350	1800 U	ug/kg		1800
Pronamide	350 U	ug/kg		350	1800 U	ug/kg		1800
p-(Dimethylamino)azobenzene	350 U	ug/kg		350	1800 U	ug/kg		1800
7,12-Dimethylbenz(A)Anthracene	350 U	ug/kg		350	1800 U	ug/kg		1800
3-Methylcholanthrene	350 U	ug/kg		350	1800 U	ug/kg		1800
Pyridine	1700 U	ug/kg		1700	8800 U	ug/kg		8800
N-Nitrosomethyl ethylamine	350 U	ug/kg		350	1800 U	ug/kg		1800
N-Nitrosomorpholine	350 U	ug/kg		350	1800 U	ug/kg		1800

# NAUSTIA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS004010  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

o-Toluidine  
Hexachloropropene  
p-Phenylenediamine  
Sesfrole  
Isosafrole  
1,4-Naphthoquinone  
1,3-Dinitrobenzene  
5-Nitro-o-toluidine  
1,3,5-Trinitrobenzene  
4-Nitroquinoline-1-oxide  
Methapyrene  
3,3'-Dimethylbenzidine  
Hexachlorophene  
Aralite  
2-Chlorophenol  
3-E-4-Methylphenol (2)  
4-Methylphenol  
Diphenylamine  
Hexachloropropene  
2-Acetylaminofluorene

350 U	ug/kg	350	1800 U	ug/kg	1800
1700 U	ug/kg	1700	8800 U	ug/kg	8800
17000 UJ	ug/kg		88000 UJ	ug/kg	
1700 U	ug/kg	1700	8800 U	ug/kg	8800
1700 U	ug/kg	1700	8800 U	ug/kg	8800
34000 U	ug/kg	34000	180000 U	ug/kg	180000
350 U	ug/kg	350	1800 U	ug/kg	1800
350 U	ug/kg	350	1800 U	ug/kg	1800
350 U	ug/kg	350	1800 U	ug/kg	1800
17000 U	ug/kg	17000	88000 U	ug/kg	88000
1700 UJ	ug/kg		8800 UJ	ug/kg	
350 U	ug/kg	350	1800 U	ug/kg	1800
1700 U	ug/kg	1700	88000 R	ug/kg	88000
350 U	ug/kg	350	8800 U	ug/kg	8800
350 U	ug/kg	350	1800 U	ug/kg	1800
-	ug/kg		1800 U	ug/kg	1800
-	ug/kg		-	ug/kg	
1700 U	ug/kg	1700	8800 U	ug/kg	8800
350 U	ug/kg	350	1800 U	ug/kg	1800

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number: M7705001 RFADATA 48SS00101 08-AUG-94  
Site Locator Collect Date: M7705002 RFADATA 48SS00201 08-AUG-94  
M7705006 RFADATA 48SS00301 08-AUG-94  
M7705007 RFADATA 48SS00401 08-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrene	8700	UJ	ug/kg	1800	1800	UJ	ug/kg	350	1700	UJ	ug/kg	350	1800	UJ	ug/kg	350
3,3'-Dimethylbenzidine	1800	U	ug/kg	1800	350	U	ug/kg	18000	350	U	ug/kg	18000	350	U	ug/kg	1800
Hexachlorophene	87000	R	ug/kg	8700	18000	R	ug/kg	1800	17000	R	ug/kg	1700	18000	R	ug/kg	1800
Arenite	8700	U	ug/kg	1800	1800	U	ug/kg	350	350	U	ug/kg	350	1800	U	ug/kg	1800
2-Chlorophenol	1800	U	ug/kg	1800	350	U	ug/kg	350	350	U	ug/kg	350	350	U	ug/kg	350
3, 4-Methylphenol (2)	1800	U	ug/kg	1800	350	U	ug/kg	350	350	U	ug/kg	350	350	U	ug/kg	350
4-Methylphenol	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-
Diphenylamine	8700	U	ug/kg	8700	1800	U	ug/kg	1800	1700	U	ug/kg	1700	1800	U	ug/kg	1800
Hexachloropropene	1800	U	ug/kg	1800	350	U	ug/kg	350	350	U	ug/kg	350	350	U	ug/kg	350
2-Acetylaminofluorene																

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SIOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS004010  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

BKG SVOC (B270-24)	350 U	ug/kg	350	1800 U	ug/kg	1800
N-Nitrosodimethylamine	350 U	ug/kg	350	1800 U	ug/kg	1800
Phenol	350 U	ug/kg	350	1800 U	ug/kg	1800
Aniline	350 U	ug/kg	350	1800 U	ug/kg	1800
Bis (2-Chloroethyl) ether	5 U	ug/kg	5	1800 U	ug/kg	1800
1,3-Dichlorobenzene	5 U	ug/kg	5	1800 U	ug/kg	1800
1,4-Dichlorobenzene	350 U	ug/kg	350	1800 U	ug/kg	1800
Benzyl Alcohol	350 U	ug/kg	350	1800 U	ug/kg	1800
1,2-Dichlorobenzene	350 U	ug/kg	350	1800 U	ug/kg	1800
2-Methylphenol	350 U	ug/kg	350	1800 U	ug/kg	1800
Bis(2-Chloroisopropyl) ether	350 U	ug/kg	350	1800 U	ug/kg	1800
N-Nitroso-di-n-propylamine	350 U	ug/kg	350	1800 U	ug/kg	1800
Hexachloroethane	350 U	ug/kg	350	1800 U	ug/kg	1800
Nitrobenzene	350 U	ug/kg	350	1800 U	ug/kg	1800
Isophorone	350 U	ug/kg	350	1800 U	ug/kg	1800
2-Nitrophenol	350 U	ug/kg	350	1800 U	ug/kg	1800
2,4-Dimethylphenol	1700 R	ug/kg	350	8800 R	ug/kg	1800
Benzoic acid	350 U	ug/kg	350	1800 U	ug/kg	1800
Bis(2-Chloroethoxy)methane	350 U	ug/kg	350	1800 U	ug/kg	1800
2,4-Dichlorophenol	350 U	ug/kg	350	1800 U	ug/kg	1800
1,2,4-Trichlorobenzene	350 U	ug/kg	350	1800 U	ug/kg	1800
Naphthalene	350 U	ug/kg	350	1800 U	ug/kg	1800
4-Chloroaniline	350 U	ug/kg	350	1800 U	ug/kg	1800
Hexachlorobutadiene	350 U	ug/kg	350	1800 U	ug/kg	1800
4-Chloro-3-methylphenol	350 U	ug/kg	350	1800 U	ug/kg	1800
2-Methylnaphthalene	350 U	ug/kg	350	1800 U	ug/kg	1800
Hexachlorocyclopentadiene	350 U	ug/kg	350	1800 U	ug/kg	1800
2,4,6-Trichlorophenol	350 U	ug/kg	350	1800 U	ug/kg	1800
Dimethylthalate	1700 U	ug/kg	1700	8800 U	ug/kg	8800
2,4,5-Trichlorophenol	350 U	ug/kg	350	1800 U	ug/kg	1800
2-Chloronaphthalene	1700 U	ug/kg	350	8800 U	ug/kg	1800
2-Nitroaniline	350 U	ug/kg	350	1800 U	ug/kg	1800
Acenaphthylene	350 U	ug/kg	350	1800 U	ug/kg	1800
2,6-Dinitrotoluene	1700 U	ug/kg	1700	8800 U	ug/kg	8800
3-Nitroaniline	350 U	ug/kg	350	1800 U	ug/kg	1800
Acenaphthene	1700 U	ug/kg	1700	8800 U	ug/kg	8800
2,4-Dinitrophenol	1700 U	ug/kg	1700	8800 U	ug/kg	8800
4-Nitrophenol	350 U	ug/kg	350	1800 U	ug/kg	1800
Dibenzofuran	350 U	ug/kg	350	1800 U	ug/kg	1800
2,4-Dinitrotoluene	350 U	ug/kg	350	1800 U	ug/kg	1800
Diethylphthalate	350 U	ug/kg	350	1800 U	ug/kg	1800



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705001  
RFADATA  
48SS00101  
08-AUG-94

M7705002  
RFADATA  
48SS00201  
08-AUG-94

M7705006  
RFADATA  
48SS00301  
08-AUG-94

M7705007  
RFADATA  
48SS00401  
08-AUG-94

DL

VALUE

DL

VALUE

DL

VALUE

DL

VALUE

DL

DL

VALUE

DL

BKG SVOC (8270+24) ug/kg

N-Nitrosodimethylamine	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Phenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Aniline	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis (2-Chloroethyl) ether	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,3-Dichlorobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,4-Dichlorobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzyl Alcohol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2-Dichlorobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylphenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroisopropyl) ether	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
N-Nitroso-di-n-propylamine	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachloroethane	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Nitrobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Isophorone	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitrophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dimethylphenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzole acid	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroethoxy)methane	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dichlorophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2,4-Trichlorobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Naphthalene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloroaniline	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorobutadiene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloro-3-methylphenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylnaphthalene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorocyclopentadiene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,6-Trichlorophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dimethylphthalate	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,5-Trichlorophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Chloronaphthalene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitroaniline	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthylene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,6-Dinitrotoluene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
3-Nitroaniline	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Nitrophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dibenzofuran	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrotoluene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Diethylphthalate	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chlorophenyl-phenylether	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Fluorene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Nitroaniline	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4,6-Dinitro-2-methylphenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
N-Nitrosodiphenylamine (1)	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2-Diphenylhydrazine	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Bromophenyl-phenylether	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorobenzene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Pentachlorophenol	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Phenanthrene	1800 U	ug/kg	1800	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

	M7705001				M7705002				M7705006				M7705007			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Anthracene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Di-n-Butylphthalate	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Fluorene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Pyrene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Butylbenzylphthalate	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
3,3'-Dichlorobenzidine	3500 U	ug/kg	3500	ug/kg	710 U	ug/kg	710	710	700 U	ug/kg	700	700	710 U	ug/kg	710	710
Benzo(a)anthracene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Chrysene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
bis(2-Ethylhexyl)phthalate	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Di-n-octylphthalate	1800 U	ug/kg	1800	ug/kg	22 U	ug/kg	22	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Benzo(b)fluoranthene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Benzo(k)fluoranthene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Benzo(a)pyrene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Indeno(1,2,3-cd)pyrene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Dibenz(a,h)anthracene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Benzo(g,h,i)perylene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
2-Picoline	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Methyl methanesulfonate	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Ethyl methanesulfonate	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Acetophenone	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
N-Nitrosopiperidine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Phenyl-t-butylamine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
2,6-Dichlorophenol	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
N-Nitroso-di-n-butylamine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
N-Nitrosodimethylamine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
N-Nitrosopyrrolidine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Benidine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
1,2,4,5-Tetrachlorobenzene	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Pentachlorobenzene	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
1-Naphthylamine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
2-Naphthylamine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
2,3,4,6-Tetrachlorophenol	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Phenacetin	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
4-Aminobiphenyl	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Pentachloronitrobenzene	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Proxamide	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
p-(Dimethylamino)azobenzene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
7,12-Dimethylbenz(A)Anthracene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
3-Methylcholanthrene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Pyridine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
N-Nitrosomethyl ethylamine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
N-Nitrosomorpholine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
o-Toluidine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
Hexachloropropene	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
p-Phenylenediamine	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Safrole	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800
Isoaforel	17000 U	ug/kg	17000	ug/kg	3500 U	ug/kg	3500	3500	3500 U	ug/kg	3500	3500	3500 U	ug/kg	3500	3500
1,4-Naphthoquinone	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
1,3-Dinitrobenzene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
5-Nitro-o-toluidine	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
1,3,5-Trinitrobenzene	1800 U	ug/kg	1800	ug/kg	350 U	ug/kg	350	350	350 U	ug/kg	350	350	350 U	ug/kg	350	350
4-Nitroquinoline-1-oxide	8700 U	ug/kg	8700	ug/kg	1800 U	ug/kg	1800	1800	1700 U	ug/kg	1700	1700	1800 U	ug/kg	1800	1800

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7705008  
RFADATA  
48SS00401D  
08-AUG-94

M7705004  
 RFADATA  
 48SS00501  
 08-AUG-94

Chloromethane  
Bromomethane  
Vinyl chloride  
Chloroethane  
Methylene chloride  
Acetone  
Carbon disulfide  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,2-Dichloroethane (total)  
Chloroform  
1,2-Dichloroethane  
2-Butanone  
1,1,1-Trichloroethane  
Carbon tetrachloride  
Bromodichloromethane  
1,2-Dichloropropane  
cis-1,3-Dichloropropene  
Trichloroethene  
Dibromochloromethane  
1,1,2-Trichloroethane  
Benzene  
trans-1,3-Dichloropropene  
Bromoform  
2-Methyl-2-pentanone  
2-Hexanone  
Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Toluene  
Chlorobenzene  
Ethylbenzene  
Styrene  
Xylenes (total)  
Trichlorofluoromethane  
1,3-Dichlorobenzene  
Acrolein  
Iodomethane  
1,4-Dichlorobenzene  
Acrylonitrile  
Dibromomethane

[illegible]

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705008  
RFADATA  
48SS00401D  
08-AUG-94

M7705004  
RFADATA  
48SS00501  
08-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

1,2-Dichlorobenzene  
2-Chloroethylvinylether  
Ethyl methacrylate  
1,2,3-Trichloropropane  
trans-1,4-Dichloro-2-butene  
Isobutyl alcohol  
1,1,1,2-Tetrachloroethane  
1,2-Dibromo-3-chloropropane  
1,2-Dibromoethane  
1,4-Dioxane  
3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

350 U ug/kg  
10 U ug/kg  
5 U ug/kg  
5 U ug/kg  
5 U ug/kg  
210 U ug/kg  
5 U ug/kg  
10 U ug/kg  
5 U ug/kg  
210 R ug/kg  
100 U ug/kg  
5 U ug/kg  
5 U ug/kg  
10 U ug/kg  
100 U ug/kg  
10 U ug/kg

1800 U ug/kg  
10 U ug/kg  
5 U ug/kg  
5 U ug/kg  
5 U ug/kg  
210 U ug/kg  
5 U ug/kg  
110 U ug/kg  
5 U ug/kg  
210 R ug/kg  
100 U ug/kg  
5 U ug/kg  
5 U ug/kg  
10 U ug/kg  
10 U ug/kg  
100 U ug/kg  
10 U ug/kg

1800

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7705001  
RFADATA  
48SS00101  
08-AUG-94

M7705002  
RFADATA  
48SS00201  
08-AUG-94

M7705006  
RFADATA  
48SS00301  
08-AUG-94

M7705007  
RFADATA  
48SS00401  
08-AUG-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

5  
100  
5  
10  
10  
100  
10

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

5 U  
100 U  
5 U  
10 U  
10 U  
100 U  
10 U

5  
100  
5  
10  
10  
100  
10

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

5 U  
100 U  
5 U  
10 U  
10 U  
100 U  
10 U

5  
100  
5  
10  
10  
100  
10

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

5 U  
100 U  
5 U  
10 U  
10 U  
100 U  
10 U

5  
110  
5  
11  
11  
110  
11

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

5 U  
110 U  
5 U  
11 U  
11 U  
110 U  
11 U

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8607001  
RFA DATA  
100P001  
24-AUG-94

M7505005  
RFA DATA  
28M001S  
11-JUL-94

R8405002  
RFA DATA  
08M005S  
26-JUL-94

M7505004  
RFA DATA  
08M001S  
11-JUL-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
GROUND WATER QUALITY												
Alkalinity as CaCO3	150		mg/l		242		mg/l		332		mg/l	
Ammonia-N	.7		mg/l		1.3		mg/l		.3	U	mg/l	
Chloride	5.6		mg/l		31.7		mg/l		17.1		mg/l	
Hardness as CaCO3	180		mg/l		262		mg/l		251		mg/l	
Nitrate/Nitrite-N	.1	U	mg/l		.1	U	mg/l		.26		mg/l	
Oil and Grease	5	U	mg/l		5	U	mg/l		5	U	mg/l	
Phosphorous-P, Total	1.08		mg/l		.81		mg/l		1.6		mg/l	
Sulfate	33.2		mg/l		36.4		mg/l		71.4		mg/l	
Sulfide	1	U	mg/l		6		mg/l		1	U	mg/l	
Total Dissolved Solids	422		mg/l		417		mg/l		442		mg/l	
Total Kjeldahl Nitrogen	1.3		mg/l		3.4		mg/l		8.3		mg/l	
Total Organic Carbon	4.6		mg/l		5.2		mg/l		5.3		mg/l	
COLOR												
Color	70		APHA		30		APHA		50		APHA	
pH												
pH	7.6		units		7.47		units		7.3		units	
TOTAL PETROLEUM HYDROCARBONS												
Total petroleum hydrocarbon			mg/l				mg/l				mg/l	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number: R8607002  
Site: RFA0001  
Locator: 150P001  
Collect Date: 24-AUG-94  
VALUE QUAL UNITS DL

GROUND WATER QUALITY			
Alkalinity as CaCO <sub>3</sub>	291	mg/l	
Ammonia-N	.8	mg/l	
Chloride	43.7	mg/l	
Hardness as CaCO <sub>3</sub>	326	mg/l	
Nitrate/Nitrite-N	.1 U	mg/l	.1
Oil and Grease	5 U	mg/l	5
Phosphorous-P, Total	.45	mg/l	
Sulfate	62.9	mg/l	
Sulfide	1 U	mg/l	1
Total Dissolved Solids	503	mg/l	
Total Kjeldahl Nitrogen	1.2	mg/l	
Total Organic Carbon	8.2	mg/l	
COLOR			
Color	5	APHA	
pH			
pH	7.11	units	
TOTAL PETROLEUM HYDROCARBONS			
Total petroleum hydrocarbon		mg/l	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

8007052H RFADATA 28MM001S 11-JUL-94

RR8404002  
RFADATA  
08MW005S  
26-JUL-94

MW7504007  
 RFADATA  
 08MW001SF  
 11-III-94

M7504006  
RFADATA  
08MW001S  
11-JUN-86

**DL**

10

19

1

**Collect 1231107**

**BKG WATER METALS**

1/5/77

Antimony	2.2 U	ug/l	2.2	6.2 U	ug/l	6.2	5 U	ug/l	3	2.2 U	ug/l	2.2	3	ug/l	2.2
Arsenic	1.1 J	ug/l	.95 J	3.3 U	ug/l	3.3	1.4 U	ug/l	1.4	4.3 J	ug/l	.6	4.3 J	ug/l	.6
Barium	3.9 J	ug/l	.18 U	3 U	ug/l	.18	.3 UJ	ug/l	.3	7 J	ug/l	.18 U	3 U	ug/l	.18
Beryllium	.18 U	ug/l	.18	3 U	ug/l	.18	1 U	ug/l	1	3 U	ug/l	.18 U	3 U	ug/l	.18
Cadmium	3 U	ug/l	.18	3 U	ug/l	.18	84500 J	ug/l	84500	3 U	ug/l	.18 U	3 U	ug/l	.18
Calcium	57900	ug/l	2.34	2.34 U	ug/l	2.34	2.6 UJ	ug/l	2.6	97700	ug/l	2.34 U	97700	ug/l	2.34
Chromium	2.34 U	ug/l	2.34	2.34 U	ug/l	2.34	3.1 UJ	ug/l	3.1	2.7 U	ug/l	2.7 U	2.7 U	ug/l	2.7
Chromium	2.7 U	ug/l	2.7	2.7 U	ug/l	2.7	.9 U	ug/l	.9	12.7 U	ug/l	12.7 U	12.7 U	ug/l	12.7
Cobalt	12.7 U	ug/l	12.7	12.7 U	ug/l	12.7	2.7 U	ug/l	2.7	.81 U	ug/l	.81 U	.81 U	ug/l	.81
Copper	.81 U	ug/l	.81	.81 U	ug/l	.81	78.6 UJ	ug/l	78.6	173 J	ug/l	173 J	173 J	ug/l	.97
Cyanide	710 J	ug/l	1.6	1.6 U	ug/l	1.6	.6 U	ug/l	.6	10800	ug/l	10800	10800	ug/l	.97
Iron	.97 UJ	ug/l	1.6	1.6 U	ug/l	1.6	18800 U	ug/l	18800	42.9 J	ug/l	42.9 J	42.9 J	ug/l	.08
Lead	6180	ug/l	.08	.08 U	ug/l	.08	23.6 UJ	ug/l	23.6	.08 U	ug/l	.08 U	.08 U	ug/l	.08
Magnesium	43.6 J	ug/l	.08	.08 U	ug/l	.08	5.9 UJ	ug/l	5.9	7.6 J	ug/l	7.6 J	7.6 J	ug/l	.08
Manganese	.08 U	ug/l	.08	.08 U	ug/l	.08	2.1 U	ug/l	2.1	1.3 UJ	ug/l	1.3 UJ	1.3 UJ	ug/l	.08
Mercury	7.3 U	ug/l	7.3	7.3 U	ug/l	7.3	.6 U	ug/l	.6	2.1 U	ug/l	2.1 U	2.1 U	ug/l	.08
Nickel	1.3 UJ	ug/l	2.1	2.1 UJ	ug/l	2.1	2.1 U	ug/l	2.1	31500 U	ug/l	31500 U	31500 U	ug/l	2.1
Selenium	2.1 UJ	ug/l	2.1	2.1 U	ug/l	2.1	.6 U	ug/l	.6	1.3 UJ	ug/l	1.3 UJ	1.3 UJ	ug/l	2.1
Silver	2.1 U	ug/l	2.1	2.1 U	ug/l	2.1	31500 U	ug/l	31500	12400 J	ug/l	12400 J	12400 J	ug/l	2.1
Sodium	4980 J	ug/l	9.4	9.4 J	ug/l	9.4	8 U	ug/l	8	9.4 UJ	ug/l	9.4 UJ	9.4 UJ	ug/l	9.4
Sodium	1.5 J	ug/l	9.4	9.4 J	ug/l	9.4	1.5 UJ	ug/l	1.5	4.8 J	ug/l	4.8 J	4.8 J	ug/l	9.4
Thallium	9.4 U	ug/l	1.7	1.7 U	ug/l	1.7	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9
Tin	1.7 U	ug/l	1.7	1.7 U	ug/l	1.7	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9
Tin	1.7 U	ug/l	1.7	1.7 U	ug/l	1.7	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9
Vanadium	5.4 U	ug/l	5.4	5.4 U	ug/l	5.4	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9
Vanadium	5.4 U	ug/l	5.4	5.4 U	ug/l	5.4	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9
Zinc	5.4 U	ug/l	5.4	5.4 U	ug/l	5.4	1.82 U	ug/l	1.82	7.9 U	ug/l	7.9 U	7.9 U	ug/l	7.9

UJ = NOT DETECTED R = RESULT IS REJECTED  
 UJ = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT

## RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8609002  
RFADATA  
100P001  
24-AUG-94

R8609003  
RFADATA  
150P001  
24-AUG-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
-------	------	-------	----	-------	------	-------	----

### BKG WATER METALS

Antimony	ug/l	5	U	ug/l	5	U	ug/l	5	U	ug/l
Arsenic	ug/l	1.4	J	ug/l	3	J	ug/l	3	J	ug/l
Barium	ug/l	4.7	J	ug/l	3	J	ug/l	3	J	ug/l
Beryllium	ug/l	3	U	ug/l	1	U	ug/l	1	U	ug/l
Cadmium	ug/l	1	U	ug/l	129000	U	ug/l	129000	U	ug/l
Calcium	ug/l	77900	U	ug/l	2.6	U	ug/l	2.6	U	ug/l
Chromium	ug/l	2.6	U	ug/l	3.1	U	ug/l	3.1	U	ug/l
Cobalt	ug/l	3.1	U	ug/l	3.1	U	ug/l	3.1	U	ug/l
Copper	ug/l	9	U	ug/l	9	U	ug/l	9	U	ug/l
Cyanide	ug/l	3.6	J	ug/l	3	J	ug/l	3	J	ug/l
Iron	ug/l	46.7	J	ug/l	130	U	ug/l	130	U	ug/l
Lead	ug/l	6	U	ug/l	6	U	ug/l	6	U	ug/l
Magnesium	ug/l	11400	U	ug/l	4800	J	ug/l	4800	J	ug/l
Manganese	ug/l	4.5	J	ug/l	33.4	U	ug/l	33.4	U	ug/l
Mercury	ug/l	1	U	ug/l	1	U	ug/l	1	U	ug/l
Nickel	ug/l	5.9	U	ug/l	5.9	U	ug/l	5.9	U	ug/l
Selenium	ug/l	6	U	ug/l	6	U	ug/l	6	U	ug/l
Silver	ug/l	2.1	U	ug/l	2.1	U	ug/l	2.1	U	ug/l
Sodium	ug/l	8910	U	ug/l	30800	U	ug/l	30800	U	ug/l
Thallium	ug/l	6	U	ug/l	6	U	ug/l	6	U	ug/l
Tin	ug/l	8	U	ug/l	8	U	ug/l	8	U	ug/l
Vanadium	ug/l	4.4	J	ug/l	1.9	J	ug/l	1.9	J	ug/l
Zinc	ug/l	3.6	J	ug/l	5.4	J	ug/l	5.4	J	ug/l

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

W7503004  
RFA DATA  
08WJ001S  
11-JUL-94

R8403002  
RFA DATA  
08WJ005S  
26-JUL-94

W7503005  
RFA DATA  
28WJ001S  
11-JUL-94

R8608001  
RFA DATA  
100P001  
24-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PESTICIDES/PCBs (SY-946,8080)			ug/l													
alpha-BHC	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
beta-BHC	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
delta-BHC	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
gamma-BHC (Lindane)	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Heptachlor	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Aldrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Heptachlor epoxide	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Endosulfan I	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Dieldrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
4,4'-DDE	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Endrin	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endosulfan II	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
4,4'-DDD	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endosulfan sulfate	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
4,4'-DDT	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Methoxychlor	.08 U	ug/l		.08	.08 U	ug/l		.08	.08 U	ug/l		.08	.08 U	ug/l		.08
Endrin aldehyde	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Endrin ketone	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04	.04 U	ug/l		.04
Chlordane	.2 U	ug/l		.2	.2 U	ug/l		.2	.2 U	ug/l		.2	.2 U	ug/l		.2
Chlorobenzilate	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5
Diallate	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Toxaphene	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Isodrin	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02	.02 U	ug/l		.02
Kepon	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Aroclor-1016	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Aroclor-1221	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2
Aroclor-1232	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2	2 U	ug/l		2
Aroclor-1242	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Aroclor-1248	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1	1 U	ug/l		1
Aroclor-1254	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5
Aroclor-1260	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5	.5 U	ug/l		.5

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8608002  
RFADATA  
15OP001  
24-AUG-94

VALUE QUAL UNITS DL

PESTICIDES/PCBs (SW-846, 8080)	ug/l				
alpha-BHC	.02 U	ug/l	.02		
beta-BHC	.04 U	ug/l	.04		
delta-BHC	.02 U	ug/l	.02		
gamma-BHC (Lindane)	.02 U	ug/l	.02		
Heptachlor	.02 U	ug/l	.02		
Aldrin	.02 U	ug/l	.02		
Heptachlor epoxide	.02 U	ug/l	.02		
Endosulfan I	.02 U	ug/l	.02		
Dieldrin	.02 U	ug/l	.02		
4,4-DDE	.02 U	ug/l	.02		
Endrin	.04 U	ug/l	.04		
Endosulfan II	.04 U	ug/l	.04		
4,4-DDD	.04 U	ug/l	.04		
Endosulfan sulfate	.04 U	ug/l	.04		
4,4-DDT	.08 U	ug/l	.08		
Methoxychlor	.04 U	ug/l	.04		
Endrin aldehyde	.04 U	ug/l	.04		
Endrin ketone	.04 U	ug/l	.04		
Chlordane	.2 U	ug/l	.2		
Chlorobenzilate	.5 U	ug/l	.5		
Diallate	1 U	ug/l	1		
Toxaphene	1 U	ug/l	1		
Isodrin	.02 U	ug/l	.02		
Kepone	1 UJ	ug/l			
Aroclor-1016	1 U	ug/l	1		
Aroclor-1221	2 U	ug/l	2		
Aroclor-1232	2 U	ug/l	2		
Aroclor-1242	1 U	ug/l	1		
Aroclor-1248	1 U	ug/l	1		
Aroclor-1254	.5 U	ug/l	.5		
Aroclor-1260	.5 U	ug/l	.5		

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8608002  
RFADATA  
15OP001  
24-AUG-94

	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	10 U	ug/l		10
Fluorene	10 U	ug/l		10
4-Nitroaniline	50 U	ug/l		50
4,6-Dinitro-2-methylphenol	50 U	ug/l		50
N-Nitrosodiphenylamine (1)	10 U	ug/l		10
1,2-Diphenylhydrazine	10 U	ug/l		10
4-Bromophenyl-phenylether	10 U	ug/l		10
Hexachlorobenzene	10 U	ug/l		10
Pentachlorophenol	50 U	ug/l		50
Phenanthrene	10 U	ug/l		10
Anthracene	10 U	ug/l		10
Di-n-Butylphthalate	10 U	ug/l		10
Fluoranthene	10 U	ug/l		10
Pyrene	10 U	ug/l		10
Butylbenzylphthalate	20 U	ug/l		20
3,3'-Dichlorobenzidine	10 U	ug/l		10
Benzo(a)anthracene	10 U	ug/l		10
Chrysene	10 U	ug/l		10
bis(2-Ethylhexyl)phthalate	10 U	ug/l		10
Di-n-octylphthalate	10 U	ug/l		10
Benzo(b)fluoranthene	10 U	ug/l		10
Benzo(k)fluoranthene	10 U	ug/l		10
Benzo(a)pyrene	10 U	ug/l		10
Indeno(1,2,3-cd)pyrene	10 U	ug/l		10
Dibenz(a,h)anthracene	10 U	ug/l		10
Benzo(g,h,i)perylene	50 U	ug/l		50
2-Picoline	10 U	ug/l		10
Methyl methanesulfonate	10 U	ug/l		10
Ethyl methanesulfonate	10 U	ug/l		10
Acetophenone	10 U	ug/l		10
N-Nitrosopiperidine	10 U	ug/l		10
Phenyl-tert-butylamine	50 U	ug/l		50
2,6-Dichlorophenol	10 U	ug/l		10
N-Nitroso-di-n-butylamine	10 U	ug/l		10
N-Nitrosodiethylamine	10 U	ug/l		10
N-Nitrosopyrrolidine	10 U	ug/l		10
Benzidine	50 U	ug/l		50
1,2,4,5-Tetrachlorobenzene	50 U	ug/l		50
Pentachlorobenzene	50 U	ug/l		50
1-Naphthylamine	50 U	ug/l		50
2-Naphthylamine	50 U	ug/l		50
2,3,4,6-Tetrachlorophenol	10 U	ug/l		10
Phenacetin	10 U	ug/l		10
4-Aminobiphenyl	50 U	ug/l		50
Pentachloronitrobenzene	50 U	ug/l		50
Pronalide	10 U	ug/l		10
p-(Dimethylamino)azobenzene	10 U	ug/l		10
7,12-Dimethylbenz(A)Anthracene	10 U	ug/l		10
3-Methylcholanthrene	10 U	ug/l		10
Pyridine	50 U	ug/l		50
N-Nitrosomethylethylamine	10 U	ug/l		10
N-Nitrosomorpholine	10 U	ug/l		10

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number: R8608002  
Site: RFADATA  
Locator: 15OP001  
Collect Date: 24-AUG-94

	VALUE	QUAL	UNITS	DL
o-Toluidine	10 U		ug/l	10
Hexachloropropene	50 U		ug/l	50
p-Phenylenediamine	500 UJ		ug/l	
Safrole	50 U		ug/l	50
Isosafrole	50 U		ug/l	50
1,4-Naphthoquinone	1000 U		ug/l	1000
1,3-Dinitrobenzene	10 U		ug/l	10
5-Nitro-o-toluidine	10 U		ug/l	10
1,3,5-Trinitrobenzene	10 UJ		ug/l	
4-Nitroquinoline-1-oxide	500 R		ug/l	50
Methapyrilene	50 U		ug/l	10
3,3'-Dimethylbenzidine	10 U		ug/l	
Hexachlorophene	500 R		ug/l	50
Aramite	50 U		ug/l	10
2-Chlorophenol	10 U		ug/l	10
3- & 4-Methylphenol (2)	10 U		ug/l	
4-Methylphenol	-		ug/l	
Diphenylamine	-		ug/l	
Hexachloropropene	50 U		ug/l	50
2-Acetylaminofluorene	10 U		ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8608001  
RFADATA  
10CP001  
24-AUG-94

H7503005  
RFADATA  
20MW001S  
11-JUL-94

R8403002  
RFADATA  
08MW005S  
26-JUL-94

H7503004  
RFADATA  
08MW001S  
11-JUL-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Methapyrilene	50 U	U	ug/l	50	50 UJ	UJ	ug/l	50	50 U	U	ug/l	50	50 U	U	ug/l	50
3,3'-Dimethylbenzidine	10 U	U	ug/l	10	10 UJ	UJ	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
Hexachlorophene	500 U	U	ug/l	500	500 R	R	ug/l	500	500 U	U	ug/l	500	500 R	R	ug/l	500
Aramite	50 U	U	ug/l	50	50 U	U	ug/l	50	50 U	U	ug/l	50	50 U	U	ug/l	50
2-Chlorophenol	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
3- & 4-Methylphenol (2)	10 U	U	ug/l	10	29		ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10
4-Methylphenol	-		ug/l		-		ug/l		-		ug/l		-		ug/l	
Diphenylamine	-		ug/l		-		ug/l		-		ug/l		-		ug/l	
Hexachloropropene	50 U	U	ug/l	50	50 UJ	UJ	ug/l	50	50 U	U	ug/l	50	50 U	U	ug/l	50
2-Acetylaminofluorene	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10	10 U	U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8608002  
RFADATA  
150P001  
24-AUG-94

VALUE QUAL UNITS DL

BKG SVOC (8270+24)	ug/l	10 U	ug/l	10
N-Nitrosodimethylamine		10 U	ug/l	10
Phenol		10 U	ug/l	10
Aniline		10 U	ug/l	10
big (2-Chloroethyl) ether		10 U	ug/l	10
1,3-Dichlorobenzene		10 U	ug/l	10
1,4-Dichlorobenzene		10 U	ug/l	10
Benzyl Alcohol		10 U	ug/l	10
1,2-Dichlorobenzene		10 U	ug/l	10
2-Methylphenol		10 U	ug/l	10
bis(2-Chloroisopropyl) ether		10 U	ug/l	10
N-Nitroso-di-n-propylamine		10 U	ug/l	10
Hexachloroethane		10 U	ug/l	10
Nitrobenzene		10 U	ug/l	10
Isophorone		10 U	ug/l	10
2-Nitrophenol		10 U	ug/l	10
2,4-Dimethylphenol		10 U	ug/l	10
Benzoic acid		50 U	ug/l	50
bis(2-Chloroethoxy)methane		10 U	ug/l	10
2,4-Dichlorophenol		10 U	ug/l	10
1,2,4-Trichlorobenzene		10 U	ug/l	10
Naphthalene		10 U	ug/l	10
4-Chloroaniline		10 U	ug/l	10
Hexachlorobutadiene		10 U	ug/l	10
4-Chloro-3-methylphenol		10 U	ug/l	10
2-Methylnaphthalene		10 U	ug/l	10
Hexachlorocyclopentadiene		10 U	ug/l	10
2,4,6-Trichlorophenol		10 U	ug/l	10
Dimethylphthalate		50 U	ug/l	50
2,4,5-Trichlorophenol		10 U	ug/l	10
2-Chloronaphthalene		50 U	ug/l	50
2-Nitroaniline		10 U	ug/l	10
Acenaphthylene		10 U	ug/l	10
2,6-Dinitrotoluene		50 U	ug/l	50
3-Nitroaniline		10 U	ug/l	10
Acenaphthene		50 U	ug/l	50
2,4-Dinitrophenol		50 U	ug/l	50
4-Nitrophenol		10 U	ug/l	10
Dibenzofuran		10 U	ug/l	10
2,4-Dinitrotoluene		10 U	ug/l	10
Diethylphthalate		10 U	ug/l	10





# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8408001  
RFADATA  
100P001  
24-AUG-94

M7503005  
RFADATA  
28M001S  
11-JUL-94

R8403002  
RFADATA  
08M005S  
26-JUL-94

M7503004  
RFADATA  
08M001S  
11-JUL-94

	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS
Anthracene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Di-n-Butylphthalate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Fluoranthene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Pyrene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Butylbenzylphthalate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
3,3'-Dichlorobenzidine	20 U	ug/l	20	U	20	ug/l	20	U	20	ug/l	20	U	20	ug/l	20	U
Benzo(a)anthracene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Chrysene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
bis(2-Ethylhexyl)phthalate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Di-n-octylphthalate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Benzo(b)fluoranthene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Benzo(k)fluoranthene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Benzo(a)pyrene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Indeno(1,2,3-cd)pyrene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Dibenz(a,h)anthracene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Benzo(g,h,i)perylene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
2-Picoline	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Methyl methanesulfonate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Ethyl methanesulfonate	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Acetophenone	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitrosopiperidine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Phenyl-tert-butylamine	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
2,6-Dichlorophenol	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitroso-di-n-butylamine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitrosodiethylamine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitrosopyrrolidine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Benzidine	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
1,2,4,5-Tetrachlorobenzene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Pentachlorobenzene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
1-Naphthylamine	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
2-Naphthylamine	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
2,3,4,6-Tetrachlorophenol	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Phenacetin	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
4-Aminobiphenyl	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Pentachloronitrobenzene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Pronamide	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
p-Dimethylamino)azobenzene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
7,12-Dimethylbenz(A)Anthracene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
3-Methylcholanthrene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Pyridine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitrosomethylethylamine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
N-Nitrosomorpholine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
o-Toluidine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
Hexachloropropene	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
p-Phenylenediamine	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Safrole	50 U	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U	50	ug/l	50	U
Isosafrole	1000 U	ug/l	1000	U	1000	ug/l	1000	U	1000	ug/l	1000	U	1000	ug/l	1000	U
1,4-Naphthoquinone	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
1,3-Dinitrobenzene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
5-Nitro-o-toluidine	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
1,3,5-Trinitrobenzene	10 U	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U	10	ug/l	10	U
4-Nitroquinoline-1-oxide	500 U	ug/l	500	U	500	ug/l	500	U	500	ug/l	500	U	500	ug/l	500	U

Lab Sample Number: \_\_\_\_\_  
 Site Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

**R8608002**  
**RFADATA**  
**150P001**  
**24-AUG-94**

VALUE	QUAL	UNITS	DL
-------	------	-------	----

BKG VOCs (8240+11)  
 Chloromethane  
 Bromomethane  
 Vinyl chloride  
 Chloroethane  
 Methylene chloride  
 Acetone  
 Carbon disulfide  
 1,1-Dichloroethane  
 1,1-Dichloroethene  
 1,2-Dichloroethene (total)  
 Chloroform  
 1,2-Dichloroethane  
 2-Butanone  
 1,1,1-Trichloroethane  
 Carbon tetrachloride  
 Bromodichloromethane  
 1,2-Dichloropropane  
 cis-1,3-Dichloropropene  
 Trichloroethene  
 Dibromochloromethane  
 1,1,2-Trichloroethane  
 Benzene  
 trans-1,3-Dichloropropene  
 Bromoform  
 4-Methyl-2-pentanone  
 2-Hexanone  
 Tetrachloroethene  
 1,1,2,2-Tetrachloroethane  
 Toluene  
 Chlorobenzene  
 Ethylbenzene  
 Styrene  
 Xylenes (total)  
 Trichlorofluoromethane  
 1,3-Dichlorobenzene  
 Acrolein  
 Iodomethane  
 1,4-Dichlorobenzene  
 Acrylonitrile  
 Dibromomethane

NAVSTA MAYPORT  
RFA Ground Water Data

Lab Sample Number: R8608002  
Site: RFA001A  
Locator: 150P001  
Collect Date: 24-AUG-94

VALUE QUAL UNITS DL

1,2-Dichlorobenzene	10 U	ug/l	10
2-Chloroethylvinylether	10 U	ug/l	10
Ethyl methacrylate	5 U	ug/l	5
1,2,3-Trichloropropane	5 U	ug/l	5
trans-1,4-Dichloro-2-butene	5 U	ug/l	5
Isobutyl alcohol	200 R	ug/l	
1,1,1,2-Tetrachloroethane	5 U	ug/l	5
1,2-Dibromo-3-chloropropane	10 UJ	ug/l	
1,2-Dibromoethane	5 UJ	ug/l	
1,4-Dioxane	200 R	ug/l	
3-Chloropropene	5 U	ug/l	5
Acetonitrile	100 UJ	ug/l	
Chloroprene	-	ug/l	
Methacrylonitrile	5 UJ	ug/l	
Methyl methacrylate	10 UJ	ug/l	
Pentachloroethane	10 UJ	ug/l	
Propionitrile	100 UJ	ug/l	
Vinyl acetate	10 U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

**HAVSTA MAYPORT**

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7503004  
RFADATA  
0844001S  
11-JUL-94

R8403002  
RFADATA  
08MW005S  
26-JUL-94

W7503005  
RFADATA  
28MW001S  
11-111-96

R8608001  
RFADATA  
100P001  
26-AUG-94

BKG VOCs (8240+11)

BKG VOCs (8240-11)  
 Chloromethane  
 Bromomethane  
 Vinyl chloride  
 Chloroethane  
 Methylene chloride  
 Acetone  
 Carbon disulfide  
 1,1-Dichloroethane  
 1,1-Dichloroethene  
 1,2-Dichloroethene (total)

1,2-Dichloroethene (total)

Chloroform  
1,2-dichloroethane

1,2-Dichloroethane  
2-Butanone

1,1,1-Trichloroethane

Carbon tetrachloride

**Bromodichloromethane**  
**1,2-Dichloropropane**

**cis-1,3-Dichloropropene**

Trichloroethene

1,1,2-Trichloroethane

Benzene

trans-1,3-Dichloropropene  
Bromoforn

4-Methyl-2-pentanone

2-Hexanone

**Tetrachloroethene**  
**1 1 2 2-Tetrachloroethane**

Toluene

Chlorobenzene

**Ethylbenzene**  
**Styrene**

Xylenes (total)

Trichlorofluoromethane

**1,3-Dichlorobenzene**  
**Acrolein**

Iodomethane

**1,4-Dichlorobenzene**

**Acrylonitrile  
Dibromomethane**

**1,2-Dichlorobenzene**

2-Chloroethylvinylether

**ethyl methacrylate**  
**1,2,3-Trichloropropane**

trans-1,4-Dichloro-2-butene

Isobutyl alcohol  
1,1,1,2-Tetrachloroethane

1,1,1,2-tetrachloroethane  
1,2-dibromo-3-chloropropane

**1,2-Dibromoethane**

## 1,4-Dioxane

# NAVSTA MAYPORT RFA Ground Water Data

Lab Sample Number: M7503004  
 Site: RFA03002  
 Locator: 08MW001S  
 Collect Date: 11-JUL-94

R8608001  
 RFA03002  
 08MW001S  
 26-JUL-94

M7503005  
 RFA03002  
 08MW001S  
 11-JUL-94

R8608001  
 RFA03002  
 08MW001S  
 26-JUL-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3-Chloropropene	5 U	U	ug/l	100	5	U	ug/l	100	5	U	ug/l	100
Acetonitrile	100 U	U	ug/l	100	100	U	ug/l	100	100	U	ug/l	100
Chloroprene	5 U	U	ug/l	10	5	U	ug/l	10	5	U	ug/l	10
Methacrylonitrile	10 U	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Methyl methacrylate	10 U	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachloroethane	100 U	U	ug/l	100	100	U	ug/l	100	100	U	ug/l	100
Propionitrile	10 U	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Vinyl acetate	10 U	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
 ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7684008  
RFADATA  
288S02204  
06-AUG-94  
QUAL UNITS

RFADATA  
28BS03104D  
06-AUG-94  
QUAL UNIT

Antimony  
Arsenic  
Barium  
Beryllium  
Cadmium  
Chromium  
Cobalt  
Copper  
Cyanide  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Tin  
Vanadium  
Zinc

mg/kg

[illegible]

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED





NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684008  
RFADATA  
288S02204  
06-AUG-94

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

DL

M7683004  
RFADATA  
288S031040  
06-AUG-94

VALUE

QUAL UNITS

DL

PESTICIDES/PCBs (SV-046, 8080)

ug/kg

alpha-BHC	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
beta-BHC	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
delta-BHC	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
gamma-BHC (Lindane)	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Heptachlor	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Aldrin	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Heptachlor epoxide	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Endosulfan I	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Dieldrin	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
4,4-DDE	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Endrin	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan II	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4-DDD	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan sulfate	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4-DDT	8.5 U	ug/kg	8.5	2.9 U	ug/kg	2.9	3 U	ug/kg	3
Methoxychlor	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endrin aldehyde	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endrin ketone	4.1 U	ug/kg	4.1	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Chlordane	21 U	ug/kg	21	7.2 U	ug/kg	7.2	7.4 U	ug/kg	7.4
Chlorobenzilate	63 U	ug/kg	63	22 U	ug/kg	22	22 U	ug/kg	22
Diallate	130 U	ug/kg	130	43 U	ug/kg	43	44 U	ug/kg	44
Toxaphene	100 U	ug/kg	100	35 U	ug/kg	35	36 U	ug/kg	36
Isodrin	2.1 U	ug/kg	2.1	.72 U	ug/kg	.72	.74 U	ug/kg	.74
Kepon	130 U	ug/kg	130	43 U	ug/kg	43	44 U	ug/kg	44
Aroclor-1016	100 U	ug/kg	100	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1221	210 U	ug/kg	210	72 U	ug/kg	72	74 U	ug/kg	74
Aroclor-1232	210 U	ug/kg	210	72 U	ug/kg	72	74 U	ug/kg	74
Aroclor-1242	100 U	ug/kg	100	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1248	100 U	ug/kg	100	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1254	54 U	ug/kg	54	18 U	ug/kg	18	19 U	ug/kg	19
Aroclor-1260	54 U	ug/kg	54	18 U	ug/kg	18	19 U	ug/kg	19

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683004  
RFADATA  
288S031040  
06-AUG-94

M7683003  
RFADATA  
288S03104  
06-AUG-94

M7684008  
RFADATA  
288S02204  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Fluorene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
4-Nitroaniline	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
4,6-Dinitro-2-methylphenol	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
N-Nitrosodiphenylamine (1)	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
1,2-Diphenylhydrazine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
4-Bromophenyl-phenylether	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Hexachlorobenzene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Pentachlorophenol	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Phenanthrene	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Anthracene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Di-n-Butylphthalate	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Fluoranthene	280 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Pyrene	280 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Butylbenzylphthalate	230 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
3,3'-Dichlorobenzidine	3300 U	U	ug/kg	3300	720 U	U	ug/kg	720	730 U	U	ug/kg	730
Benzo(a)anthracene	210 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Chrysene	270 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Bis(2-Ethylhexyl)phthalate	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Di-n-octylphthalate	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Benzo(b)fluoranthene	310 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Benzo(k)fluoranthene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Benzo(a)pyrene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Indeno(1,2,3-cd)pyrene	290 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Dibenz(a,h)anthracene	180 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Benzo(g,h,i)perylene	200 J	J	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
2-Picoline	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Methyl methanesulfonate	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Ethyl methanesulfonate	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Acetophenone	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Phenyl-tert-butylamine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
2,6-Dichlorophenol	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
N-Nitroso-di-n-butylamine	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
N-Nitrosodiphenylamine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
N-Nitrosopyrrolidine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Benidine	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
1,2,4,5-Tetrachlorobenzene	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Pentachlorobenzene	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
1-Naphthylamine	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
2,3,6-Tetrachlorophenol	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
Phenacetin	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
4-Aminobiphenyl	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Pentachloronitrobenzene	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Pronamide	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
p-(Dimethylamino)azobenzene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
7,12-Dimethylbenz(a)Anthracene	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
3-Methylcholanthrene	8100 U	U	ug/kg	8100	1800 U	U	ug/kg	1800	1800 U	U	ug/kg	1800
Pyridine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
N-Nitrosomethyl ethylamine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370
N-Nitrosomorpholine	1700 U	U	ug/kg	1700	360 U	U	ug/kg	360	370 U	U	ug/kg	370

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684008  
RFADATA  
28BS02204  
06-AUG-94

M7683003  
RFADATA  
28BS03104  
06-AUG-94

M7683004  
RFADATA  
28BS031040  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	1700	UJ	ug/kg	8100	360	U	ug/kg	360	370	U	ug/kg	370
Hexachloropropene	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
p-Phenylenediamine	81000	UJ	ug/kg	8100	18000	UJ	ug/kg	1800	18000	U	ug/kg	18000
Safrole	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
Isosafrole	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
1,4-Naphthoquinone	170000	U	ug/kg	170000	35000	U	ug/kg	35000	36000	U	ug/kg	36000
1,3-Dinitrobenzene	1700	UJ	ug/kg	1700	360	UJ	ug/kg	360	370	U	ug/kg	370
5-Nitro-o-toluidine	1700	UJ	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
1,3,5-Trinitrobenzene	81000	R	ug/kg	81000	18000	U	ug/kg	18000	18000	UJ	ug/kg	18000
4-Nitroquinoline-1-oxide	8100	UJ	ug/kg	8100	1800	U	ug/kg	1800	1800	UJ	ug/kg	1800
Methapyrene	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
3,3'-dimethylbenzidine	81000	R	ug/kg	81000	18000	U	ug/kg	18000	18000	R	ug/kg	18000
Hexachlorophene	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
Aramite	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
2-Chlorophenol	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
3- & 4-Methylphenol (2)	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
4-Methylphenol	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
Diphenylamine	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
Hexachloropropene	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370
2-Acetylaminofluorene	8100	U	ug/kg	8100	1800	U	ug/kg	1800	1800	U	ug/kg	1800
	1700	U	ug/kg	1700	360	U	ug/kg	360	370	U	ug/kg	370

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684006  
RFADATA  
28BS00106  
06-AUG-94

M7684007  
RFADATA  
28BS00504  
06-AUG-94

M7684019  
RFADATA  
28BS01004  
06-AUG-94

M7684020  
RFADATA  
28BS01704  
06-AUG-94

COLLECT DATE.	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
	1700 U	ug/kg		1700	2900 UJ	ug/kg			2100 U	ug/kg		2100	1900 U	ug/kg		1
Methapyrene	350 U	ug/kg		350	600 U	ug/kg			420 U	ug/kg		420	390 U	ug/kg		
3,3'-Dimethylbenzidine	17000 R	ug/kg			29000 R	ug/kg			21000 R	ug/kg			19000 R	ug/kg		
Hexachlorophene	1700 UJ	ug/kg			2900 U	ug/kg			2100 UJ	ug/kg			1900 UJ	ug/kg		
Aramite	350 U	ug/kg		350	600 U	ug/kg			420 U	ug/kg		420	390 U	ug/kg		
2-Chlorophenol	350 U	ug/kg		350	600 U	ug/kg			420 U	ug/kg		420	390 U	ug/kg		
3- & 4-Methylphenol (2)	-	ug/kg			-	ug/kg			-	ug/kg			-	ug/kg		
4-Methylphenol	-	ug/kg			-	ug/kg			-	ug/kg			-	ug/kg		
Diphenylamine	-	ug/kg			-	ug/kg			-	ug/kg			-	ug/kg		
Hexachloropropene	1700 UJ	ug/kg			2900 U	ug/kg			2100 UJ	ug/kg			1900 UJ	ug/kg		
2-Acetylaminofluorene	350 U	ug/kg		350	600 U	ug/kg			420 U	ug/kg		420	390 U	ug/kg		

U = NOT DETECTED & = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

## **NAVSTA MAYPORT**

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7683004  
RFADATA  
28BS03104D  
06-AUG-94

M7683003  
RFADATA  
28BS03104  
06-011C-94

N7684008  
 RFADATA  
 28BS02204  
 06-AUG-94

Collect Date:	UG-AUG-94	DL	VALUE	QUAL UNITS	DL	UG-AUG-94	DL	VALUE	QUAL UNITS	DL



NAVSTA MAYPORT  
RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684006  
RFADATA  
288S00106  
06-AUG-94

M7684007  
RFADATA  
288S00504  
06-AUG-94

M7684019  
RFADATA  
288S01004  
06-AUG-94

M7684020  
RFADATA  
288S01704  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG SVOC (8270+26)																
N-Nitrosodimethylamine	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Phenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Aniline	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
bis (2-Chloroethyl) ether	5 U	ug/kg		5	11 U	ug/kg		11	420 U	ug/kg		420	390 U	ug/kg		390
1,3-Dichlorobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
1,4-Dichlorobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Benzyl Alcohol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
1,2-Dichlorobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2-Methylphenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
bis(2-Chloroisopropyl) ether	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
N-Nitroso-di-n-propylamine	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Hexachloroethane	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Nitrobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Isophorone	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2-Nitrophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4-Dimethylphenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Benzoic acid	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
bis(2-Chloroethoxy)methane	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4-Dichlorophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
1,2,4-Trichlorobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Naphthalene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Chloroaniline	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Hexachlorobutadiene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Chloro-3-methylphenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2-Methylnaphthalene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Hexachlorocyclopentadiene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4,6-Trichlorophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Dimethylphthalate	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4,5-Trichlorophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2-Chloronaphthalene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2-Nitroaniline	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Acenaphthylene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,6-Dinitrotoluene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
3-Nitroaniline	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Acenaphthene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4-Dinitrophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Nitrophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Dibenzofuran	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
2,4-Dinitrotoluene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Diethylphthalate	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Chlorophenyl-phenylether	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Fluorene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Nitroaniline	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4,6-Dinitro-2-methylphenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
N-Nitrosodiphenylamine (1)	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
1,2-Diphenylhydrazine	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
4-Bromophenyl-phenylether	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Hexachlorobenzene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Pentachlorophenol	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390
Phenanthrene	350 U	ug/kg		350	600 U	ug/kg		600	420 U	ug/kg		420	390 U	ug/kg		390

**NAVSTA MAYPORT**

147684006  
 RFADATA  
 Z88S00106  
 06-AUG-94

M7684019  
 RFADATA  
 288SQ1004

W7684007  
RFADATA  
28BS00504

Collect Date:	06-AUG-94				06-AUG-94				06-AUG-94				06-AUG-94			
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	
Anthracene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
01-n-Butylphthalate	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	50 J	ug/kg	390	420	ug/kg	390	
Fluoranthene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Pyrene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Butylbenzylphthalate	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	790 U	ug/kg	790	850	ug/kg	790	
3,3'-Dichlorobenzidine	690 U	ug/kg	690	1200 U	ug/kg	1200	850 U	ug/kg	850	390 U	ug/kg	390	420	ug/kg	390	
Benzo(a)anthracene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Chrysene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
bis(2-Ethylhexyl)phthalate	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Di-n-octylphthalate	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Benzo(b)fluoranthene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Benzo(k)fluoranthene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Benzo(a)pyrene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Indeno(1,2,3-cd)pyrene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Dibenz(a,h)anthracene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Benzo(g,h,i)perylene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
2-Picoline	1700 U	ug/kg	1700	2900 UJ	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Methyl methanesulfonate	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Ethyl methanesulfonate	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Acetophenone	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
N-Nitrosopyrrolidine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Phenyl -tert-butylamine	1700 UJ	ug/kg	1700	2900 U	ug/kg	2900	2100 UJ	ug/kg	2100	1900 UJ	ug/kg	1900	2100	ug/kg	1900	
2,6-Dichlorophenol	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
N-Nitroso-di-n-butylamine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
N-Nitrosodimethylethylamine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
N-Nitrosopyrrolidine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Benadoline	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
1,2,4,5-Tetrachlorobenzene	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Pentachlorobenzene	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
1-Naphthylamine	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
2-Naphthylamine	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
2,3,4,6-Tetrachlorophenol	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Phenacetin	350 UJ	ug/kg	350	600 UJ	ug/kg	600	420 UJ	ug/kg	420	390 UJ	ug/kg	390	420	ug/kg	390	
4-Aminobiphenyl	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Pentachloronitrobenzene	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Propionide	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
p-(Dimethylamino)azobenzene	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
7,12-Dimethylbenz(A)Anthracene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
3-Methylcholanthrene	350 U	ug/kg	350	600 U	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Pyridine	1700 U	ug/kg	1700	2900 UJ	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
N-Nitrosomethylethylamine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
N-Nitrosomorpholine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
o-Toluidine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
Hexachloropropene	1700 UJ	ug/kg	1700	2900 UJ	ug/kg	2900	2100 UJ	ug/kg	2100	1900 UJ	ug/kg	1900	2100	ug/kg	1900	
p-Phenylenediamine	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Safrole	1700 U	ug/kg	1700	2900 U	ug/kg	2900	2100 U	ug/kg	2100	1900 U	ug/kg	1900	2100	ug/kg	1900	
Isosafrole	35000 U	ug/kg	35000	60000 U	ug/kg	60000	42000 U	ug/kg	42000	39000 U	ug/kg	39000	42000	ug/kg	39000	
1,4-Naphthoquinone	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
1,3-Dinitrobenzene	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
5-Nitro-o-toluidine	350 U	ug/kg	350	600 UJ	ug/kg	600	420 U	ug/kg	420	390 U	ug/kg	390	420	ug/kg	390	
1,3,5-Trinitrobenzene	350 UJ	ug/kg	350	600 UJ	ug/kg	600	420 UJ	ug/kg	420	390 UJ	ug/kg	390	420	ug/kg	390	
4-Aminodiphenylamine-1-oxide	17000 R	ug/kg	17000	29000 R	ug/kg	29000	21000 R	ug/kg	21000	19000 R	ug/kg	19000	21000	ug/kg	19000	



Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684008  
RFADATA  
288S02204  
06-AUG-94

M7683003  
RFADATA  
288S03104  
06-AUG-94

M7683004  
RFADATA  
288S03104D  
06-AUG-94

NAVSTA MAYPORT  
RFA Soil Boring Data

VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL

9KG VDCa (B240+11)	14 U	ug/kg	14	11 U	ug/kg	11
Chloromethane	14 U	ug/kg	14	11 U	ug/kg	11
Bromomethane	14 U	ug/kg	14	11 U	ug/kg	11
Vinyl chloride	14 U	ug/kg	14	11 U	ug/kg	11
Chloroethane	10 U	ug/kg	10	12 U	ug/kg	12
Methylene chloride	37 U	ug/kg	37	17 UJ	ug/kg	17
Acetone	3 J	ug/kg		5 U	ug/kg	5
Carbon disulfide	7 U	ug/kg	7	5 U	ug/kg	5
1,1-Dichloroethane	7 U	ug/kg	7	5 U	ug/kg	5
1,1-Dichloroethene	7 U	ug/kg	7	5 U	ug/kg	5
1,2-Dichloroethene (total)	7 U	ug/kg	7	5 U	ug/kg	5
Chloroform	7 U	ug/kg	7	5 U	ug/kg	5
1,2-Dichloroethane	14 R	ug/kg		11 R	ug/kg	11
2-Butanone	7 U	ug/kg	7	5 U	ug/kg	5
1,1,1-Trichloroethane	7 U	ug/kg	7	5 U	ug/kg	5
Carbon tetrachloride	7 U	ug/kg	7	5 U	ug/kg	5
Bromodichloromethane	7 U	ug/kg	7	5 U	ug/kg	5
1,2-Dichloropropane	7 U	ug/kg	7	5 U	ug/kg	5
cis-1,3-Dichloropropene	7 U	ug/kg	7	5 U	ug/kg	5
Trichloroethene	7 U	ug/kg	7	5 U	ug/kg	5
Dibromochloromethane	7 U	ug/kg	7	5 U	ug/kg	5
1,1,2-Trichloroethane	7 U	ug/kg	7	5 U	ug/kg	5
Benzene	7 U	ug/kg	7	5 U	ug/kg	5
trans-1,3-Dichloropropene	7 U	ug/kg	7	5 U	ug/kg	5
Bromoform	7 U	ug/kg	7	5 U	ug/kg	5
4-Methyl-2-pentanone	14 U	ug/kg	14	11 U	ug/kg	11
2-Hexanone	14 U	ug/kg	14	11 U	ug/kg	11
Tetrachloroethene	7 U	ug/kg	7	5 U	ug/kg	5
1,1,2,2-Tetrachloroethane	7 U	ug/kg	7	5 U	ug/kg	5
Toluene	7 U	ug/kg	7	5 U	ug/kg	5
Chlorobenzene	7 U	ug/kg	7	5 U	ug/kg	5
Ethylbenzene	7 U	ug/kg	7	5 U	ug/kg	5
Styrene	7 U	ug/kg	7	5 U	ug/kg	5
Xylenes (total)	7 U	ug/kg	7	5 U	ug/kg	5
Trichlorofluoromethane	1700 U	ug/kg	1700	370 U	ug/kg	370
1,3-Dichlorobenzene	140 U	ug/kg	140	110 U	ug/kg	110
Acrolein	14 U	ug/kg	14	11 U	ug/kg	11
Iodomethane	1700 U	ug/kg	1700	370 U	ug/kg	370
1,4-Dichlorobenzene	140 U	ug/kg	140	110 U	ug/kg	110
Acrylonitrile	7 U	ug/kg	7	5 U	ug/kg	5
Dibromomethane						

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683004  
RFADATA  
288S03104D  
06-AUG-94

M7683003  
RFADATA  
288S03104  
06-AUG-94

M7684008  
RFADATA  
288S02204  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	1700	U	ug/kg	1700	6	U	ug/kg	370	U	ug/kg	370	370
2-Chloroethylvinylether	14	U	ug/kg	14	11	U	ug/kg	11	U	ug/kg	11	11
Ethyl methacrylate	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
1,2,3-Trichloropropane	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
trans-1,4-Dichloro-2-butene	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
Isobutyl alcohol	280	U	ug/kg	280	220	U	ug/kg	220	U	ug/kg	220	220
1,1,1,2-Tetrachloroethane	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
1,2-Dibromo-3-chloropropane	150	U	ug/kg	150	120	U	ug/kg	110	U	ug/kg	110	110
1,2-Dibromoethane	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
1,4-Dioxane	280	R	ug/kg	280	220	R	ug/kg	220	R	ug/kg	220	220
3-Chloropropene	140	U	ug/kg	140	6	U	ug/kg	5	U	ug/kg	5	5
Acetonitrile	140	U	ug/kg	140	110	U	ug/kg	110	U	ug/kg	110	110
Chloroprene	7	U	ug/kg	7	6	U	ug/kg	5	U	ug/kg	5	5
Methacrylonitrile	14	U	ug/kg	14	11	U	ug/kg	11	U	ug/kg	11	11
Methyl methacrylate	14	U	ug/kg	14	11	U	ug/kg	11	U	ug/kg	11	11
Pentachloroethane	140	U	ug/kg	140	110	U	ug/kg	110	U	ug/kg	110	110
Propionitrile	14	U	ug/kg	14	11	U	ug/kg	11	U	ug/kg	11	11
Vinyl acetate	14	U	ug/kg	14	11	U	ug/kg	11	U	ug/kg	11	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SWOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684006  
RFADATA  
288S00106  
06-AUG-94

M7684007  
RFADATA  
288S00504  
06-AUG-94

M7684019  
RFADATA  
288S01004  
06-AUG-94

M7684020  
RFADATA  
288S01704  
06-AUG-94

	VALUE	DL	QUAL UNITS	DL	VALUE	DL	QUAL UNITS	DL	VALUE	DL	QUAL UNITS	DL
BKG VOCs (2240-11)												
Chloromethane	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Bromomethane	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Vinyl chloride	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Chloroethane	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Methylene chloride	7 U	7	ug/kg		11 U	11	ug/kg		18 U	18	ug/kg	
Acetone	26 U	26	ug/kg		200 J		ug/kg		59 J		ug/kg	
Carbon disulfide	5 U	5	ug/kg		24		ug/kg		6 U	6	ug/kg	
1,1-Dichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,1,1-Trichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dichloroethane (total)	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Chloroform	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
2-Butanone	11 R		ug/kg		21 J		ug/kg		12 R		ug/kg	
1,1,1-Trichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Carbon tetrachloride	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Bromodichloromethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dichloropropane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
cis-1,3-Dichloropropane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Trichloroethene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Dibromochloromethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,1,2-Trichloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Benzene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
trans-1,3-Dichloropropene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Bromoform	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
4-Methyl-2-pentanone	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
2-Hexanone	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Tetrachloroethene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,1,2,2-Tetrachloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Toluene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Chlorobenzene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Ethylbenzene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Styrene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Xylenes (total)	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Trichlorofluoromethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,3-Dichlorobenzene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Acrolein	110 U	110	ug/kg		210 U	210	ug/kg		390 U	390	ug/kg	
Iodomethane	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
1,4-Dichlorobenzene	350 U	350	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Acrylonitrile	110 U	110	ug/kg		210 U	210	ug/kg		390 U	390	ug/kg	
Dibromomethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dichlorobenzene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
2-Chloroethylvinylether	11 U	11	ug/kg		21 U	21	ug/kg		12 U	12	ug/kg	
Ethyl methacrylate	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2,3-Trichloropropane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
trans-1,4-Dichloro-2-butene	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
Isobutyl alcohol	210 U	210	ug/kg		420 U	420	ug/kg		240 U	240	ug/kg	
1,1,2-Tetrachloroethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,2-Dibromo-3-chloropropane	110 U	110	ug/kg		220 U	220	ug/kg		120 U	120	ug/kg	
1,2-Dibromomethane	5 U	5	ug/kg		11 U	11	ug/kg		6 U	6	ug/kg	
1,4-Dioxane	210 R		ug/kg		420 R		ug/kg		240 R		ug/kg	

# NAVSTA MAYPORT RFA Soil Boring Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684006  
RFADATA  
288S00106  
06-AUG-94

M7684007  
RFADATA  
288S00504  
06-AUG-94

M7684019  
RFADATA  
288S01004  
06-AUG-94

M7684020  
RFADATA  
288S01704  
06-AUG-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

6  
120  
6  
12  
12  
120  
12

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

6  
120  
6  
12  
12  
120  
12

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

11  
210  
11  
21  
21  
210  
21

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

5  
110  
5  
11  
11  
110  
11

ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg  
ug/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683005  
RFADATA  
28SS03301  
06-AUG-94  
QUAL UNITS

M7698012  
RFADATA  
28SS03401  
10-AUG-94  
QUAL UNITS

M7698011  
RFADATA  
28SS03501  
10-AUG-94  
QUAL UNITS

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

## BKG SOILS METALS

mg/kg

Antimony  
Arsenic  
Barium  
Beryllium  
Cadmium  
Chromium  
Cobalt  
Copper  
Cyanide  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Tin  
Vanadium  
Zinc

.47 UJ  
.9 J  
8.9 J  
.09 U  
.64 U  
2.5  
.56 U  
.93 U  
.03 U  
5.6 J  
.08 U  
1.5 U  
.43 U  
.78 J  
.27 U  
3 J  
2.2 J  
3.4 U

.48 UJ  
1.2 J  
6.6 J  
.08 J  
.66 U  
3.5  
.58 U  
6.8  
.03 U  
6.1  
.08 U  
1.6 U  
.29 UJ  
.45 U  
.28 U  
2 U  
6 J  
16.7

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

.66  
.58  
.03  
.08  
1.6  
.45  
.28  
2  
3.4

.67  
4.1  
.04  
.09  
.46  
.29  
2.1  
15

mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg  
mg/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675011  
RFADATA  
28SS02201  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

M7675008  
RFADATA  
28SS02501  
05-AUG-94

DL

VALUE

QUAL

VALUE

DL

QUAL

VALUE

DL

QUAL

VALUE

DL

QUAL

VALUE

DL

## BKG SOILS METALS

mg/kg

Antimony  
Arsenic  
Barium  
Beryllium  
Cadmium  
Chromium  
Cobalt  
Copper  
Cyanide  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Tin  
Vanadium  
Zinc

.47 U  
.58 J  
4 J  
1 J  
.64 U  
3.1  
.57 U  
.85 U  
.03 U  
.87 J  
.08 U  
1.6 U  
.28 U  
.44 U  
.28 U  
2.3 J  
2.2 J  
1 U

.47 U  
.82 J  
4.6 J  
.13 J  
.64 U  
1.9 J  
.56 U  
1.2 J  
.03 U  
.43 UJ  
.08 U  
1.5 U  
.28 U  
.43 U  
.27 U  
3.3 J  
1.9 J  
.7 U

.47  
.64  
.56  
.03  
.08  
1.5  
.28  
.43  
.27  
.7

.47 U  
1.1 J  
7.1 J  
.13 J  
.64 U  
3.9  
.95 J  
2.2 J  
.03 U  
.83 J  
.08 U  
1.5 U  
.28 U  
.43 U  
.27 U  
3.5 J  
3.8 J  
1.6 U

.47  
.64  
.03  
.08  
1.5  
.28  
.43  
.27  
1.6

.47 U  
.53 J  
6.5 J  
.16 J  
.64 U  
2.1 J  
.59 J  
.87 J  
.03 U  
.51 J  
.08 U  
1.5 U  
.28 U  
.48 J  
.27 U  
2.7 J  
1.5 J  
1.35 U

.47  
.64  
.03  
.08  
1.5  
.28  
.27  
1.35

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675007  
RFADATA  
28SS02601  
05-AUG-94

M7675006  
RFADATA  
28SS02701  
05-AUG-94

M7675005  
RFADATA  
28SS02801  
05-AUG-94

M7675004  
RFADATA  
28SS02901  
05-AUG-94

BKG SOILS METALS	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Antimony	.47 U		mg/kg		.46 U		mg/kg		.46		mg/kg		.47		mg/kg	
Arsenic	.49 J		mg/kg		.56 J		mg/kg		.67		mg/kg		.75		mg/kg	
Barium	3.5 J		mg/kg		4.8 J		mg/kg		5.8 J		mg/kg		4.2 J		mg/kg	
Beryllium	.1 J		mg/kg		.11 J		mg/kg		.1 J		mg/kg		.12 J		mg/kg	
Cadmium	.64 U		mg/kg		.63 U		mg/kg		.64 U		mg/kg		.64 U		mg/kg	
Chromium	2.4		mg/kg		2.6		mg/kg		3.1		mg/kg		2 J		mg/kg	
Cobalt	.56 U		mg/kg		.58 J		mg/kg		.61 J		mg/kg		.57 U		mg/kg	
Copper	.84 U		mg/kg		1 J		mg/kg		4.1 J		mg/kg		.84 U		mg/kg	
Cyanide	.03 U		mg/kg		.03 U		mg/kg		.03 U		mg/kg		.03 U		mg/kg	
Lead	.92 J		mg/kg		1.5 J		mg/kg		.9 J		mg/kg		1 J		mg/kg	
Mercury	.08 U		mg/kg		.07 U		mg/kg		.08 U		mg/kg		.08 U		mg/kg	
Nickel	1.5 U		mg/kg		1.5 U		mg/kg		1.5 U		mg/kg		1.5 U		mg/kg	
Selenium	.28 U		mg/kg		.28 U		mg/kg		.28 U		mg/kg		.28 U		mg/kg	
Silver	.44 U		mg/kg		.43 U		mg/kg		.61 J		mg/kg		.44 U		mg/kg	
Thallium	.27 U		mg/kg		.27 U		mg/kg		.27 U		mg/kg		.27 U		mg/kg	
Tin	3.8 J		mg/kg		4.5 J		mg/kg		3.3 J		mg/kg		3 J		mg/kg	
Vanadium	1.6 J		mg/kg		2.1 J		mg/kg		2.1 J		mg/kg		1.5 J		mg/kg	
Zinc	.56 U		mg/kg		.88 U		mg/kg		3.4 J		mg/kg		1.35 U		mg/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



## MAVSTA MAYPORT

W7684015  
RFADATA  
28SS01501  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684018  
RFADATA  
28SS01B01  
06-AUG-94

mg/kg

[illegible]

64  
57  
85  
03  
07  
1.5  
52  
27

.48 UJ	mg/kg
1.1 J	mg/kg
4.3 J	mg/kg
.1 J	mg/kg
.65 U	mg/kg
2 J	mg/kg
.58 U	mg/kg
1.3 J	mg/kg
.03 U	mg/kg
1 UJ	mg/kg
.09 U	mg/kg
1.6 U	mg/kg
.29 UJ	mg/kg
.52 U	mg/kg
.28 U	mg/kg
2.6 J	mg/kg
1.7 J	mg/kg
2 J	mg/kg

[illegible]

.48	UJ
1.2	J
6	J
.12	J
.65	U
2.4	
.58	U
.86	U
.03	U
1.2	U
.08	U
1.6	U
.28	UJ
.52	U
.28	U
2.7	J
2.2	J
2.2	J

UJ = NOT DETECTED R = RESULT IS REJECTED  
UJ = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684004  
RFADATA  
28SS01901  
06-AUG-94

M7684005  
RFADATA  
28SS02001  
06-AUG-94

M7675012  
RFADATA  
28SS02101  
05-AUG-94

M7675013  
RFADATA  
28SS021010  
05-AUG-94

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

# NAVSTA HAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7698013  
RFADATA  
28SS00801  
10-AUG-94

M7675019  
RFADATA  
28SS00901  
05-AUG-94

M7684010  
RFADATA  
28SS01001  
06-AUG-94

M7684009  
RFADATA  
28SS01101  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG SOILS METALS																
Antimony	.48 UJ		mg/kg		.47 UJ		mg/kg		.48 UJ		mg/kg		.49 UJ		mg/kg	
Arsenic	1.3 J		mg/kg		.59 J		mg/kg		.71 J		mg/kg		1.1 J		mg/kg	
Barium	4.1 J		mg/kg		2.7 J		mg/kg		3.2 J		mg/kg		6.2 J		mg/kg	
Beryllium	.05 J		mg/kg		.09 J		mg/kg		.04 U		mg/kg		.08 J		mg/kg	
Cadmium	.65 U		mg/kg	.65	.64 U		mg/kg		.65 U		mg/kg		.67 U		mg/kg	.67
Chromium	1.4 J		mg/kg		1.9 J		mg/kg		1.2 J		mg/kg		2.3		mg/kg	
Cobalt	.57 U		mg/kg	.57	.73 J		mg/kg		.57 U		mg/kg		.59 U		mg/kg	.59
Copper	3.3 U		mg/kg	3.3	1 J		mg/kg		.86 U		mg/kg		.99 J		mg/kg	
Cyanide	.03 U		mg/kg	.03	.03 U		mg/kg		.03 U		mg/kg		.04 U		mg/kg	.04
Lead	1.3 J		mg/kg		.45 J		mg/kg		.92 U		mg/kg		1.3 U		mg/kg	1.3
Mercury	.08 U		mg/kg	.08	.07 U		mg/kg		.08 U		mg/kg		.09 U		mg/kg	.09
Nickel	1.6 U		mg/kg	1.6	1.5 U		mg/kg		1.6 U		mg/kg		1.6 U		mg/kg	1.6
Selenium	.47 J		mg/kg		.28 U		mg/kg		.28 UJ		mg/kg		.29 UJ		mg/kg	
Silver	.44 U		mg/kg	.44	.44 U		mg/kg		.52 U		mg/kg		.52 U		mg/kg	.52
Thallium	.28 U		mg/kg	.28	.27 U		mg/kg		.28 U		mg/kg		.29 U		mg/kg	
Tin	2 U		mg/kg	2	3.7 J		mg/kg		.28 U		mg/kg		3.2 J		mg/kg	
Vanadium	1.5 J		mg/kg		1.6 J		mg/kg		1.1 J		mg/kg		2.3 J		mg/kg	
Zinc	1.6 U		mg/kg	1.6	1.4 U		mg/kg		1.1 J		mg/kg		8.6		mg/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684001  
RFADATA  
28SS00101  
06-AUG-94

M7684002  
RFADATA  
28SS00201  
06-AUG-94

M7684003  
RFADATA  
28SS00201D  
06-AUG-94

M7675014  
RFADATA  
28SS00301  
05-AUG-94

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

DL

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number: Site Locator Collect Date:	M7675015				M7675016				M7675017				M7675018			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG. SOILS METALS																
Antimony		.46 U	mg/kg		.48 U	mg/kg		.48	.48 U	mg/kg			.47 U	mg/kg		.47
Arsenic		.61 J	mg/kg		1.6 J	mg/kg			.79 J	mg/kg			1.5 J	mg/kg		
Berium		.4 J	mg/kg		7.4 J	mg/kg			4.3 J	mg/kg			17.4 J	mg/kg		
Beryllium		.09 J	mg/kg		.13 J	mg/kg			.05 J	mg/kg			.14 J	mg/kg		
Cadmium		.63 U	mg/kg		.65 U	mg/kg		.65	.64 U	mg/kg			.64 U	mg/kg		.64
Chromium		2 J	mg/kg		3.5	mg/kg			1.8 J	mg/kg			3.6	mg/kg		
Cobalt		.56 U	mg/kg		.57 U	mg/kg		.57	.57 U	mg/kg			.59 J	mg/kg		.57
Copper		.83 U	mg/kg		1.5 J	mg/kg		.83	.85 U	mg/kg			4.5 J	mg/kg		.85
Cyanide		.03 U	mg/kg		.03 U	mg/kg		.03	.03 U	mg/kg			.03 U	mg/kg		.03
Lead		.43 UJ	mg/kg		.44 UJ	mg/kg			.44 UJ	mg/kg			.43 UJ	mg/kg		.43
Mercury		.08 U	mg/kg		.07 U	mg/kg		.07	.08 U	mg/kg			.07 U	mg/kg		.07
Nickel		1.5 U	mg/kg		1.6 U	mg/kg		1.6	1.6 U	mg/kg			1.5 U	mg/kg		1.5
Selenium		.28 U	mg/kg		.28 U	mg/kg		.28	.28 U	mg/kg			.28 U	mg/kg		.28
Silver		.43 U	mg/kg		.44 U	mg/kg		.44	.44 U	mg/kg			.56 J	mg/kg		.44
Thallium		.27 U	mg/kg		.28 U	mg/kg		.28	.28 U	mg/kg			.27 U	mg/kg		.27
Tin		3.8 J	mg/kg		2.3 J	mg/kg			2.4 J	mg/kg			2.8 J	mg/kg		
Vanadium		2 J	mg/kg		4.1 J	mg/kg			1.7 J	mg/kg			3.2 J	mg/kg		
Zinc		.56 U	mg/kg		1.7 U	mg/kg		1.7	1.3 U	mg/kg			1.5 U	mg/kg		1.3

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED





# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683005  
RFADATA  
28SS03301  
06-AUG-94  
QUAL UNITS

M7698012  
RFADATA  
28SS03401  
10-AUG-94  
QUAL UNITS

M7698011  
RFADATA  
28SS03501  
10-AUG-94  
QUAL UNITS

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

## PESTICIDES/PCBs (SW-846, 8080)

ug/kg

alpha-BHC	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
beta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
delta-BHC	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
gamma-BHC (Lindene)	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Heptachlor	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Aldrin	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Heptachlor epoxide	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Endosulfan I	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Dieldrin	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Endrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Endosulfan II	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
4,4-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
4,4-DDT	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Methoxychlor	2.8 U	ug/kg	2.8	2.9 U	ug/kg	2.9	3 U	ug/kg	3
Endrin aldehyde	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Endrin ketone	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.5 U	ug/kg	1.5
Chlordane	7.1 U	ug/kg	7.1	7.2 U	ug/kg	7.2	7.5 U	ug/kg	7.5
Chlorobenzilate	21 U	ug/kg	21	22 U	ug/kg	22	22 U	ug/kg	22
Diallate	42 U	ug/kg	42	43 U	ug/kg	43	45 U	ug/kg	45
Toxaphene	35 U	ug/kg	35	35 U	ug/kg	35	37 U	ug/kg	37
Isodrin	.71 U	ug/kg	.71	.72 U	ug/kg	.72	.75 U	ug/kg	.75
Kepon	42 U	ug/kg	42	43 U	ug/kg	43	45 U	ug/kg	45
Aroclor-1016	35 U	ug/kg	35	35 U	ug/kg	35	37 U	ug/kg	37
Aroclor-1221	71 U	ug/kg	71	72 U	ug/kg	72	75 U	ug/kg	75
Aroclor-1232	71 U	ug/kg	71	72 U	ug/kg	72	75 U	ug/kg	75
Aroclor-1242	35 U	ug/kg	35	35 U	ug/kg	35	37 U	ug/kg	37
Aroclor-1248	35 U	ug/kg	35	35 U	ug/kg	35	37 U	ug/kg	37
Aroclor-1254	18 U	ug/kg	18	18 U	ug/kg	18	19 U	ug/kg	19
Aroclor-1260	18 U	ug/kg	18	18 U	ug/kg	18	19 U	ug/kg	19

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675008  
RFADATA  
28SS02501  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675011  
RFADATA  
28SS02201  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PESTICIDES/PCBs (SU-846,8080)																
alpha-BHC	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
beta-BHC	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
delta-BHC	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
gamma-BHC (lindane)	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Heptachlor	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Aldrin	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Heptachlor epoxide	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Endosulfan I	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Dieldrin	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
4,4-DDE	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Endrin	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Endosulfan II	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
4,4-DDD	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
Endosulfan sulfate	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
4,4-DDT	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
Methoxychlor	2.9	U	ug/kg		2.8	U	ug/kg		2.9	U	ug/kg		2.9	U	ug/kg	
Endrin aldehyde	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
Endrin ketone	1.4	U	ug/kg		1.3	U	ug/kg		1.4	U	ug/kg		1.4	U	ug/kg	
Chlordane	7.1	U	ug/kg		6.9	U	ug/kg		7.1	U	ug/kg		7.2	U	ug/kg	
Chlorobenzilate	21	U	ug/kg		21	U	ug/kg		21	U	ug/kg		21	U	ug/kg	
Diallate	43	U	ug/kg		42	U	ug/kg		43	U	ug/kg		42	U	ug/kg	
Toxaphene	35	U	ug/kg		34	U	ug/kg		35	U	ug/kg		36	U	ug/kg	
Isodrin	.71	U	ug/kg		.69	U	ug/kg		.65	U	ug/kg		.72	U	ug/kg	
Kepon	42	U	ug/kg		41	U	ug/kg		43	U	ug/kg		42	U	ug/kg	
Aroclor-1016	35	U	ug/kg		34	U	ug/kg		35	U	ug/kg		36	U	ug/kg	
Aroclor-1221	71	U	ug/kg		69	U	ug/kg		71	U	ug/kg		72	U	ug/kg	
Aroclor-1232	71	U	ug/kg		69	U	ug/kg		71	U	ug/kg		72	U	ug/kg	
Aroclor-1242	35	U	ug/kg		34	U	ug/kg		35	U	ug/kg		36	U	ug/kg	
Aroclor-1248	35	U	ug/kg		34	U	ug/kg		35	U	ug/kg		36	U	ug/kg	
Aroclor-1254	18	U	ug/kg		18	U	ug/kg		18	U	ug/kg		18	U	ug/kg	
Aroclor-1260	18	U	ug/kg		18	U	ug/kg		18	U	ug/kg		18	U	ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

## NAVSTA MAYPORT

M7675004  
RFADATA  
28SS02901  
05-AUG-94  
QUAL UNIT

M7675005  
RFADATA  
28SS02801  
05-AUG-94

H7675006  
 RFADATA  
 28SS02701  
 05-AUG-94

W7675007  
RFADATA  
28SS02601  
05-4116-94

0

value

al

**WILLIE**

5

1981

;

# 1

2

**ug/kg**[illegible]

UJ = NOT DETECTED R = RESULT IS REJECTED  
 IJ = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684015  
RFADATA  
28SS01501  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684018  
RFADATA  
28SS01801  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PESTICIDES/PCBs (SV-846,8080)			ug/kg													
alpha-BHC	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Beta-BHC	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
delta-BHC	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
gamma-BHC (Lindane)	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Heptachlor	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aldrin	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Heptachlor epoxide	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endosulfan I	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Dieldrin	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
4,4-DDE	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endrin	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endosulfan II	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
4,4-DDD	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endosulfan sulfate	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
4,4-DDT	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Methoxychlor	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endrin aldehyde	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Endrin ketone	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Chlordane	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Chlorobenzilate	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Diallate	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Toxaphene	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Isodrin	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Kepon	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1016	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1221	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1232	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1242	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1248	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1254	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73
Aroclor-1260	.71 U	1.4 U	ug/kg	.71	.72 U	1.4 U	ug/kg	.72	.75 U	1.5 U	ug/kg	.75	.73 U	1.4 U	ug/kg	.73

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number: Site Locator Collect Date:	M7684004			M7684005			M7675012			M7675013		
	RFADATA 28SS01901 06-AUG-94	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	RFADATA 28SS02001 06-AUG-94	QUAL UNITS	DL	RFADATA 28SS02101 05-AUG-94	QUAL UNITS	DL
PESTICIDES/PCBs (SU-846,8080)												
alpha-BHC	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
beta-BHC	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
delta-BHC	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
gamma-BHC (Lindane)	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Heptachlor	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Aldrin	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Heptachlor epoxide	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Endosulfan I	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Dieldrin	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
4,4'-DDE	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Endrin	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan II	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4'-DDD	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endosulfan sulfate	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
4,4'-DDT	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Methoxychlor	3 U	ug/kg	3	2.9 U	ug/kg	2.9	2.9 U	ug/kg	2.9	2.9 U	ug/kg	2.9
Endrin aldehyde	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Endrin ketone	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4	1.4 U	ug/kg	1.4
Chlordane	7.4 U	ug/kg	7.4	7.1 U	ug/kg	7.1	7.1 U	ug/kg	7.1	7.3 U	ug/kg	7.3
Chlorobenzilate	22 U	ug/kg	22	21 U	ug/kg	21	21 U	ug/kg	21	22 U	ug/kg	22
Diallate	44 U	ug/kg	44	43 U	ug/kg	43	43 U	ug/kg	43	43 U	ug/kg	43
Toxaphene	36 U	ug/kg	36	35 U	ug/kg	35	35 U	ug/kg	35	36 U	ug/kg	36
Isodrin	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Kepon	43 U	ug/kg	43	42 U	ug/kg	42	42 U	ug/kg	42	43 U	ug/kg	43
Aroclor-1016	36 U	ug/kg	36	35 U	ug/kg	35	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1221	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Aroclor-1232	74 U	ug/kg	.74	.71 U	ug/kg	.71	.71 U	ug/kg	.71	.73 U	ug/kg	.73
Aroclor-1242	36 U	ug/kg	36	35 U	ug/kg	35	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1248	36 U	ug/kg	36	35 U	ug/kg	35	35 U	ug/kg	35	36 U	ug/kg	36
Aroclor-1254	18 U	ug/kg	18	18 U	ug/kg	18	18 U	ug/kg	18	18 U	ug/kg	18
Aroclor-1260	18 U	ug/kg	18	18 U	ug/kg	18	18 U	ug/kg	18	18 U	ug/kg	18

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684011  
RFADATA  
28SS01201  
06-AUG-94

M7684012  
RFADATA  
28SS01301  
06-AUG-94

M7684013  
RFADATA  
28SS01401  
06-AUG-94

M7684014  
RFADATA  
28SS01401D  
06-AUG-94

	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS
PESTICIDES/PCBs (SU-846,8080)																
alpha-BHC	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
beta-BHC	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
delta-BHC	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
gamma-BHC (Lindane)	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Heptachlor	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Aldrin	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Heptachlor epoxide	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Endosulfan I	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Dieldrin	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
4,4-DDE	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Endrin	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
Endosulfan II	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
4,6-DDD	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
Endosulfan sulfate	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
4,4-DDT	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
Methoxychlor	3 U		U	ug/kg	3		U	ug/kg	2.9 U		U	ug/kg	2.9 U		U	ug/kg
Endrin aldehyde	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
Endrin ketone	1.4 U		U	ug/kg	1.4		U	ug/kg	1.4 U		U	ug/kg	1.4 U		U	ug/kg
Chlordane	7.4 U		U	ug/kg	7.4		U	ug/kg	7.1 U		U	ug/kg	7.2 U		U	ug/kg
Chlorobenzilate	22 U		U	ug/kg	22		U	ug/kg	21 U		U	ug/kg	21 U		U	ug/kg
Diallate	44 U		U	ug/kg	44		U	ug/kg	43 U		U	ug/kg	43 U		U	ug/kg
Toxaphene	36 U		U	ug/kg	36		U	ug/kg	35 U		U	ug/kg	35 U		U	ug/kg
Isodrin	.74 U		U	ug/kg	.74		U	ug/kg	.71 U		U	ug/kg	.72 U		U	ug/kg
Kepon	43 U		U	ug/kg	43		U	ug/kg	42 U		U	ug/kg	42 U		U	ug/kg
Aroclor-1016	36 U		U	ug/kg	36		U	ug/kg	35 U		U	ug/kg	35 U		U	ug/kg
Aroclor-1221	74 U		U	ug/kg	74		U	ug/kg	71 U		U	ug/kg	71 U		U	ug/kg
Aroclor-1232	74 U		U	ug/kg	74		U	ug/kg	71 U		U	ug/kg	71 U		U	ug/kg
Aroclor-1242	36 U		U	ug/kg	36		U	ug/kg	35 U		U	ug/kg	35 U		U	ug/kg
Aroclor-1248	36 U		U	ug/kg	36		U	ug/kg	35 U		U	ug/kg	35 U		U	ug/kg
Aroclor-1254	18 U		U	ug/kg	18		U	ug/kg	18 U		U	ug/kg	18 U		U	ug/kg
Aroclor-1260	18 U		U	ug/kg	18		U	ug/kg	18 U		U	ug/kg	18 U		U	ug/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684001  
RFADATA  
28SS00101  
06-AUG-94

M7684002  
RFADATA  
28SS00201  
06-AUG-94

M7684003  
RFADATA  
28SS00201D  
06-AUG-94

M7675014  
RFADATA  
28SS00301  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PESTICIDES/PCBs (SW-846, 8060)																
alpha-BHC	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
beta-BHC	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
delta-BHC	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
gamma-BHC (Lindane)	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Heptachlor	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Aldrin	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Heptachlor epoxide	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Endosulfan I	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Dieldrin	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
4,4-DDD	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Endrin	1.5 U	ug/kg		1.5	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Endosulfan II	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
4,4-DDD	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
Endosulfan sulfate	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
4,4-DDT	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
Methoxychlor	3.1 U	ug/kg		3.1	3 U	ug/kg		3	3 U	ug/kg		3	2.9 U	ug/kg		2.9
Endrin aldehyde	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
Endrin ketone	1.5 U	ug/kg		1.5	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4	1.4 U	ug/kg		1.4
Chlordane	7.6 U	ug/kg		7.6	7.4 U	ug/kg		7.4	7.4 U	ug/kg		7.4	7.3 U	ug/kg		7.3
Chlorobenzilate	23 U	ug/kg		23	22 U	ug/kg		22	22 U	ug/kg		22	22 U	ug/kg		22
Diallate	45 U	ug/kg		45	44 U	ug/kg		44	44 U	ug/kg		44	43 U	ug/kg		43
Toxaphene	38 U	ug/kg		38	36 U	ug/kg		36	36 U	ug/kg		36	36 U	ug/kg		36
Isodrin	.76 U	ug/kg		.76	.74 U	ug/kg		.74	.74 U	ug/kg		.74	.73 U	ug/kg		.73
Kepon	45 U	ug/kg		45	44 U	ug/kg		44	44 U	ug/kg		44	43 U	ug/kg		43
Aroclor-1016	38 U	ug/kg		38	36 U	ug/kg		36	36 U	ug/kg		36	36 U	ug/kg		36
Aroclor-1221	76 U	ug/kg		76	74 U	ug/kg		74	74 U	ug/kg		74	73 U	ug/kg		73
Aroclor-1232	76 U	ug/kg		76	74 U	ug/kg		74	74 U	ug/kg		74	73 U	ug/kg		73
Aroclor-1242	38 U	ug/kg		38	36 U	ug/kg		36	36 U	ug/kg		36	36 U	ug/kg		36
Aroclor-1260	19 U	ug/kg		19	19 U	ug/kg		19	19 U	ug/kg		19	18 U	ug/kg		18
Aroclor-1254	19 U	ug/kg		19	19 U	ug/kg		19	19 U	ug/kg		19	18 U	ug/kg		18
Aroclor-1260	19 U	ug/kg		19	19 U	ug/kg		19	19 U	ug/kg		19	18 U	ug/kg		18

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

DL

VALUE

DL

VALUE

DL

VALUE

DL

VALUE

QUAL

UNITS

DL

VALUE

DL

## PESTICIDES/PCBs (SU-846,8080)

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

ug/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683005  
RFADATA  
28SS03301  
06-AUG-94

M7698012  
RFADATA  
28SS03401  
10-AUG-94

M7698011  
RFADATA  
28SS03501  
10-AUG-94

	VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL		VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Fluorene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
4-Nitroaniline	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
4,6-Dinitro-2-methylphenol	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	370
N-Nitrosodiphenylamine (1)	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
1,2-Diphenylhydrazine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
4-Bromophenyl-phenylether	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Hexachlorobenzene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Pentachlorophenol	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Phenanthrene	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Anthracene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Di-n-Butylphthalate	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Fluoranthene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Pyrene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Butylbenzylphthalate	700 U	ug/kg				7200	U	ug/kg			7200	U	ug/kg	750
3,3'-Dichlorobenzidine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benzo(a)anthracene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Chrysene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
bis(2-Ethylhexyl)phthalate	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Di-n-octylphthalate	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benzo(b)fluoranthene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benzo(k)fluoranthene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benzo(a)pyrene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Indeno(1,2,3-cd)pyrene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Dibenz(a,h)anthracene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benzo(g,h,i)perylene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
2-Picoline	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Methyl methanesulfonate	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Ethyl methanesulfonate	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Acetophenone	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitrosopiperidine	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Phenyl-tert-butylamine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
2,6-Dichlorophenol	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitroso-di-n-butylamine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitrosodiphenylamine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitrosopyrrolidine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Benazoline	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
1,2,4,5-Tetrachlorobenzene	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Pentachlorobenzene	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
1-Naphthylamine	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
2-Naphthylamine	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
2,3,4,6-Tetrachlorophenol	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
Phenacetin	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
4-Aminobiphenyl	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Pentachloronitrobenzene	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Protonamide	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
p-(Dimethylamino)azobenzene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
7,12-Dimethylbenz(A)anthracene	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
3-Methylcholanthrene	1700 U	ug/kg				18000	U	ug/kg			18000	U	ug/kg	1800
Pyridine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitrosomethylethylamine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370
N-Nitrosomorpholine	350 U	ug/kg				3600	U	ug/kg			3600	U	ug/kg	370

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683005  
RFADATA  
28SS03301  
06-AUG-94

M7698012  
RFADATA  
28SS03401  
10-AUG-94

M7698011  
RFADATA  
28SS03501  
10-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
Hexachloropropene	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
p-Phenylenediamine	17000 U	U	ug/kg	17000	180000 U	U	ug/kg	180000	18000 U	U	ug/kg	18000
Safrole	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
Isosafrole	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
1,4-Naphthoquinone	35000 U	U	ug/kg	35000	350000 U	U	ug/kg	350000	37000 U	U	ug/kg	37000
1,3-Dinitrobenzene	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
5-Nitro-o-toluidine	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
1,3,5-Trinitrobenzene	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
4-Nitroquinoline-1-oxide	17000 U	U	ug/kg	17000	180000 U	U	ug/kg	180000	18000 U	U	ug/kg	18000
Methapyrene	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
3,3'-Dimethylbenzidine	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
Hexachlorophene	17000 U	U	ug/kg	17000	180000 U	U	ug/kg	180000	18000 U	U	ug/kg	18000
Aramite	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
2-Chlorophenol	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
3- & 4-Methylphenol (2)	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
4-Methylphenol	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
Diphenylamine	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370
Hexachloropropene	1700 U	U	ug/kg	1700	18000 U	U	ug/kg	18000	1800 U	U	ug/kg	1800
2-Acetylaminofluorene	350 U	U	ug/kg	350	3600 U	U	ug/kg	3600	370 U	U	ug/kg	370

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
Y = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675002  
RFADATA  
28SS03001  
05-AUG-94

M7675003  
RFADATA  
28SS03001D  
05-AUG-94

M7683001  
RFADATA  
28SS03101  
06-AUG-94

M7683002  
RFADATA  
28SS03201  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
Hexachloropropene	1600 R		ug/kg	16000	1900 R		ug/kg	19000	1700 U		ug/kg	1700	1800 U		ug/kg	1800
p-Phenylenediamine	16000 U		ug/kg	1600	19000 U		ug/kg	19000	17000 UJ		ug/kg	17000	18000 UJ		ug/kg	18000
Serfrole	1600 U		ug/kg	1600	1900 U		ug/kg	1900	1700 U		ug/kg	1700	1800 U		ug/kg	1800
Isosafrole	1600 U		ug/kg	1600	1900 U		ug/kg	1900	1700 U		ug/kg	1700	1800 U		ug/kg	1800
1,4-Naphthoquinone	34000 U		ug/kg	34000	39000 U		ug/kg	39000	35000 U		ug/kg	35000	36000 U		ug/kg	36000
1,3-Dinitrobenzene	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 UJ		ug/kg	360
5-Nitro-o-toluidine	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
1,3,5-Trinitrobenzene	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
4-Nitroquinoline-1-oxide	16000 UJ		ug/kg	1600	19000 UJ		ug/kg	19000	17000 R		ug/kg	17000	18000 U		ug/kg	18000
Methapyrillene	1600 U		ug/kg		1900 U		ug/kg	1900	1700 UJ		ug/kg	1700	1800 U		ug/kg	1800
3,3'-Dimethylbenzidine	340 UJ		ug/kg		390 UJ		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
Hexachlorophene	16000 UJ		ug/kg		19000 UJ		ug/kg	19000	17000 R		ug/kg	17000	18000 U		ug/kg	18000
Aramite	340 U		ug/kg		390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
2-Chlorophenol	1600 UJ		ug/kg	340	1900 U		ug/kg	1900	1700 UJ		ug/kg	1700	1800 U		ug/kg	1800
3- & 4-Methylphenol (2)	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
4-Methylphenol	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360
Diphenylamine			ug/kg				ug/kg				ug/kg				ug/kg	
Hexachloropropene	1600 R		ug/kg		1900 R		ug/kg		1700 U		ug/kg	1700	1800 U		ug/kg	1800
2-Acetylnitrofluorene	340 U		ug/kg	340	390 U		ug/kg	390	350 U		ug/kg	350	360 U		ug/kg	360

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7698011  
RFADATA  
28SS03501  
10-AUG-94

M7698012  
RFADATA  
28SS03401  
10-AUG-94

M7683005  
RFADATA  
28SS03301  
06-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL

BKG SVOC (8270+24)	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
N-Nitrosodimethylamine	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Phenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Aniline	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
bis (2-Chloroethyl) ether	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
1,3-Dichlorobenzene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
1,4-Dichlorobenzene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Benzyl Alcohol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
1,2-Dichlorobenzene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2-Methylphenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
bis(2-Chloroisopropyl) ether	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
N-Nitroso-di-n-propylamine	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Hexachloroethane	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Nitrobenzene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Isophorone	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2-Nitrophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4-Dimethylphenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Benzoic acid	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
bis(2-Chloroethoxy)methane	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4-Dichlorophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
1,2,4-Trichlorobenzene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Naphthalene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
4-Chloroaniline	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Hexachlorobutadiene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
4-Chloro-3-methylphenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2-Methylnaphthalene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Hexachlorocyclopentadiene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4,6-Trichlorophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Dimethylphthalate	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4,5-Trichlorophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2-Chloronaphthalene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2-Nitroaniline	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Acenaphthylene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,6-Dinitrotoluene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
3-Nitroaniline	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Acenaphthene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4-Dinitrophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
4-Nitrophenol	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Dibenzofuran	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
2,4-Dinitrotoluene	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370
Diethylphthalate	350 U	ug/kg	350	3600 U	ug/kg	3600	370 U	ug/kg	370

## **MAYSTA MAYPORT**

Lab Sample Number:   
Site   
Locator   
Collect Date:

VALUE	QUAL UNIT
M7675002	
RFADATA	
28SS03001	
05-AUG-94	

M7675003  
RFADATA  
28SS03001D  
05-AUG-94

W7683001  
RFADATA  
Z8SS03101

W7683002  
RFADATA  
28SS03201  
06-AUG-94

**µg/kg**

BKG 500C (0270-24)

M-Nitrosodimethylamine

Phenol

Aniline

bis (2-Chloroethyl) ether

1,3-Dichlorobenzene

1,4-Dichlorobenzene

Benzyl Alcohol

1,2-Dichlorobenzene

2-Methylphenol

bis(2-Chloroisopropyl) ether

M-Nitroso-di-n-propylamine

Hexachloroethane

Nitrobenzene

Isophorone

2-Nitrophenol

2,4-Dimethylphenol

Benzoic acid

bis(2-Chloroethoxy)methane

2,4-Dichlorophenol

1,2,4-Trichlorobenzene

Naphthalene

4-Chloroaniline

Hexachlorobutadiene

4-Chloro-3-methylphenol

2-Methylnaphthalene

Hexachlorocyclopentadiene

2,4,6-Trichlorophenol

Dimethylphthalate

2,4,5-Trichlorophenol

2-Chloronaphthalene

2-Nitroaniline

Acenaphthylene

2,6-Dinitrotoluene

3-Nitroaniline

Acenaphthene

4-Nitrophenol

Dibenzofuran

2,4-Dinitrophenol

2,4-Dinitrotoluene

Diethylphthalate

[illegible]

340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
5	5 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
1600	1900 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg
1600	1900 U	ug/kg
340	390 U	ug/kg
1600	1900 U	ug/kg
340	390 U	ug/kg
340	1900 U	ug/kg
340	1900 U	ug/kg
1600	1900 U	ug/kg
340	390 U	ug/kg
340	390 U	ug/kg

[illegible]

Phenol  
 Aniline  
 bis (2-Chloroethyl) ether  
 1,3-Dichlorobenzene  
 1,4-Dichlorobenzene  
 Benzyl Alcohol  
 1,2-Dichlorobenzene  
 2-Methylphenol  
 bis(2-Chloroisopropyl) ether  
 N-Nitroso-di-n-propylamine  
 Hexachloroethane  
 Nitrobenzene  
 Isophorone  
 2-Nitrophenol  
 2,4-Dimethylphenol  
 Benzoic acid  
 bis(2-Chloroethoxy)methane  
 2,4-Dichlorophenol  
 1,2,4-Trichlorobenzene  
 Naphthalene  
 4-Chloroaniline  
 Hexachlorobutadiene  
 4-Chloro-3-methylphenol  
 2-Methylnaphthalene  
 Hexachlorocyclopentadiene  
 2,4,6-Trichlorophenol  
 Dimethylphthalate  
 2,4,5-Trichlorophenol  
 2-Chloronaphthalene  
 2-Nitroaniline  
 Acenaphthylene  
 2,6-Dinitrotoluene  
 3-Nitroaniline  
 Acenaphthene  
 2,4-Dinitrophenol  
 4-Nitrophenol  
 Dibenzofuran  
 2,4-Dinitrotoluene  
 2,4-Dinitrophenol

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683002  
RFADATA  
28SS03201  
06-AUG-94

M7683001  
RFADATA  
28SS03101  
06-AUG-94

M7675003  
RFADATA  
28SS03001D  
05-AUG-94

M7675002  
RFADATA  
28SS03001  
05-AUG-94

	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether													
Fluorene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
4-Nitroaniline	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
4,6-Dinitro-2-methylphenol	1600	1600	UJ	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
N-Nitrosodiphenylamine (1)	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	1800
1,2-Diphenylhydrazine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
4-Bromophenyl-phenylether	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Hexachlorobenzene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Pentachlorophenol	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Phenanthrene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Anthracene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Di-n-Butylphthalate	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Fluoranthene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Pyrene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Butylbenzylphthalate	680	680	U	ug/kg	790	790	UJ	ug/kg	790	790	UJ	ug/kg	720
3,3'-Dichlorobenzidine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Benzo(a)anthracene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Chrysene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Bis(2-Ethylhexyl)phthalate	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Di-n-octylphthalate	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Benzo(b)fluoranthene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Benzo(k)fluoranthene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Benzo(a)pyrene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Indeno(1,2,3-cd)pyrene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Dibenz(a,h)anthracene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Benzo(g,h,i)perylene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
2-Picoline	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Methyl methanesulfonate	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Ethyl methanesulfonate	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Acetophenone	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitrosopiperidine	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Phenyl-tert-butylamine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
2,6-Dichlorophenol	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitroso-di-n-butylamine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitrosodiphenylamine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitrosopyrrolidine	1600	1600	UJ	ug/kg	1900	1900	UJ	ug/kg	1900	1900	UJ	ug/kg	1800
Benidine	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
1,2,4,5-Tetrachlorobenzene	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Pentachlorobenzene	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
1-Naphthylamine	1600	1600	UJ	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
2-Naphthylamine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
2,3,4,6-Tetrachlorophenol	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Phenacetic	1600	1600	UJ	ug/kg	1900	1900	UJ	ug/kg	1900	1900	UJ	ug/kg	1800
4-Aminobiphenyl	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Pentachloronitrobenzene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
Prenamide	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
p-(Dimethylamino)azobenzene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
7,12-Dimethylbenz(A)anthracene	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
3-Methylcholanthrene	1600	1600	U	ug/kg	1900	1900	U	ug/kg	1900	1900	U	ug/kg	1800
Pyridine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitrosomethyl ethylamine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360
N-Nitrosomorpholine	340	340	U	ug/kg	390	390	U	ug/kg	390	390	U	ug/kg	360

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675007  
RFADATA  
28SS02601  
05-AUG-94

M7675006  
RFADATA  
28SS02701  
05-AUG-94

M7675005  
RFADATA  
28SS02801  
05-AUG-94

M7675004  
RFADATA  
28SS02901  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Fluorene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
4-Nitroaniline	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700
4,6-Dinitro-2-methylphenol	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitrosodiphenylamine (1)	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
1,2-Diphenylhydrazine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
4-Bromophenyl-phenylether	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Hexachlorobenzene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Pentachlorophenol	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Phenanthrene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Anthracene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Di-n-Butylphthalate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Fluoranthene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Pyrene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Butylbenzylphthalate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
3,3'-Dichlorobenzidine	700	U	ug/kg	700	690	U	ug/kg	690	700	U	ug/kg	700	690	U	ug/kg	690
Benzo(a)anthracene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Chrysene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
bis(2-Ethylhexyl)phthalate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Di-n-octylphthalate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Benzo(b)fluoranthene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Benzo(k)fluoranthene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Benzo(a)pyrene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Indeno(1,2,3-cd)pyrene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Dibenz(a,h)anthracene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Benzo(g,h,i)perylene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
2-Picoline	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Methyl methanesulphonate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Ethyl methanesulphonate	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Acetophenone	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitrosopiperidine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Phenyl-tert-butylamine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
2,6-Dichlorophenol	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitroso-di-n-butylamine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitrosodiethylamine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitrosopyrrolidine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Benidine	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700
1,2,4,5-Tetrachlorobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Pentachlorobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
1-Naphthylamine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
2-Naphthylamine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
2,3,4,6-Tetrachlorophenol	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Phenacetin	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
4-Aminobiphenyl	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700
Pentachloronitrobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Propamide	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
p-(Dimethylamino)azobenzene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
7,12-Dimethylbenzo(a)anthracene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
3-Methylcholanthrene	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Pyridine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
N-Nitrosomethylethylamine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitrosomorpholine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350



NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number: M7675007 M7675006 M7675005 M7675004  
Site RFADATA RFADATA RFADATA  
Locator 28SS02601 28SS02701 28SS02801 28SS02901  
Collect Date: 05-AUG-94 05-AUG-94 05-AUG-94 05-AUG-94

VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL VALUE QUAL UNITS DL

o-Toluidine	350 U	ug/kg	350	340 U	ug/kg	340	350 U	ug/kg	350	350 U	ug/kg	350
Hexachloropropene	1700 R	ug/kg	17000	17000 U	ug/kg	17000	1700 R	ug/kg	17000	1700 R	ug/kg	17000
p-Phenylenediamine	17000 U	ug/kg	1700	1700 U	ug/kg	1700	17000 U	ug/kg	17000	17000 U	ug/kg	17000
Safrrole	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Incense	1700 U	ug/kg	35000	34000 U	ug/kg	34000	35000 U	ug/kg	35000	35000 U	ug/kg	35000
1,4-Naphthoquinone	350 U	ug/kg	350	340 U	ug/kg	340	350 U	ug/kg	350	350 U	ug/kg	350
1,3-Dinitrobenzene	350 U	ug/kg	350	340 U	ug/kg	340	350 U	ug/kg	350	350 U	ug/kg	350
5-Nitro-o-toluidine	350 U	ug/kg	350	340 U	ug/kg	340	350 U	ug/kg	350	350 U	ug/kg	350
1,3,5-Trinitrobenzene	1700 UJ	ug/kg	1700	17000 UJ	ug/kg	17000	17000 UJ	ug/kg	17000	17000 UJ	ug/kg	17000
4-Nitroquinoline-1-oxide	1700 U	ug/kg		1700 U	ug/kg		1700 U	ug/kg		1700 U	ug/kg	
Methapyrillene	350 UJ	ug/kg		340 UJ	ug/kg		350 UJ	ug/kg		350 UJ	ug/kg	
3,3'-Dimethylbenzidine	17000 UJ	ug/kg		17000 UJ	ug/kg		17000 UJ	ug/kg		17000 UJ	ug/kg	
Hexachlorophene	1700 UJ	ug/kg		1700 UJ	ug/kg		1700 UJ	ug/kg		1700 UJ	ug/kg	
Aramite	350 U	ug/kg	350	340 U	ug/kg	340	350 U	ug/kg	350	350 U	ug/kg	350
2-Chlorophenol	-	ug/kg		-	ug/kg		-	ug/kg		-	ug/kg	
3- & 4-Methylphenol (2)	-	ug/kg		-	ug/kg		-	ug/kg		-	ug/kg	
4-Methylphenol	-	ug/kg		-	ug/kg		-	ug/kg		-	ug/kg	
Diphenylamine	1700 R	ug/kg	350	1700 R	ug/kg	350	1700 R	ug/kg	350	1700 R	ug/kg	350
Hexachloropropene	350 U	ug/kg		340 U	ug/kg		350 U	ug/kg		350 U	ug/kg	
2-Acetylaminothiophene												

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675011  
RFADATA  
28SS02201  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

M7675008  
RFADATA  
28SS02501  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	350	U	ug/kg	350	340	U	ug/kg	340	350	U	ug/kg	350	350	U	ug/kg	350
Hexachloropropene	17000	R	ug/kg	17000	16000	R	ug/kg	16000	16000	R	ug/kg	17000	17000	R	ug/kg	17000
p-Phenylenediamine	17000	U	ug/kg	17000	16000	U	ug/kg	16000	16000	U	ug/kg	17000	17000	U	ug/kg	17000
Safrole	1700	U	ug/kg	1700	1600	U	ug/kg	1600	1600	U	ug/kg	1700	1700	U	ug/kg	1700
Isosafrole	35000	U	ug/kg	35000	34000	U	ug/kg	34000	34000	U	ug/kg	35000	35000	U	ug/kg	35000
1,4-Naphthoquinone	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
1,3-Dinitrobenzene	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
5-Nitro-o-toluidine	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
1,3,5-Trinitrobenzene	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
4-Nitroquinoline-1-oxide	17000	UJ	ug/kg	17000	16000	UJ	ug/kg	16000	16000	UJ	ug/kg	17000	17000	UJ	ug/kg	17000
Methapyrillene	350	UJ	ug/kg	350	340	UJ	ug/kg	340	340	UJ	ug/kg	350	350	UJ	ug/kg	350
3,3'-Dimethylbenzidine	17000	UJ	ug/kg	17000	16000	UJ	ug/kg	16000	16000	UJ	ug/kg	17000	17000	UJ	ug/kg	17000
Hexachlorophene	1700	U	ug/kg	1700	1600	U	ug/kg	1600	1600	U	ug/kg	1700	1700	U	ug/kg	1700
Aramite	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
2-Chlorophenol	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
3- & 4-Methylphenol (2)	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350
4-Methylphenol	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-
Diphenylamine	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-
Hexachloropropene	1700	R	ug/kg	1700	1600	R	ug/kg	1600	1600	R	ug/kg	1700	1700	R	ug/kg	1700
2-Acetylaminofluorene	350	U	ug/kg	350	340	U	ug/kg	340	340	U	ug/kg	350	350	U	ug/kg	350

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

Lab Sample Number:	M7675004	M7675005	M7675006	M7675007
Site	RFADATA	RFADATA	RFADATA	RFADATA
Locator	28SS02901	28SS02801	28SS02701	28SS02601
Collect Date:	05-AUG-94	05-AUG-94	05-AUG-94	05-AUG-94
BKG SVOC (8270+24)				
N-Nitrosodimethylamine				
Phenol				
Aniline				
bis (2-Chloroethyl) ether				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Benzyl Alcohol				
1,2-Dichlorobenzene				
2-Methylphenol				
bis(2-Chloroisopropyl)ether				
N-Nitroso-di-n-propylamine				
Hexachloroethane				
Nitrobenzene				
Isochloro				
2-Nitrophenol				
2,4-Dimethylphenol				
Benzoic acid				
bis(2-Chloroethoxy)methane				
2,4-Dichlorophenol				
1,2,4-Trichlorobenzene				
Naphthalene				
4-Chloroaniline				
Hexachlorobutadiene				
4-Chloro-3-methylphenol				
2-Methylnaphthalene				
Hexachlorocyclopentadiene				
2,4,6-Trichlorophenol				
Dimethylphthalate				
2,4,5-Trichlorophenol				
2-Chloronaphthalene				
2-Nitroaniline				
Acenaphthylene				
2,6-Dinitrotoluene				
3-Nitroaniline				
Acenaphthene				
2,4-Dinitrophenol				
4-Nitrophenol				
Dibenzofuran				
2,4-Dinitrotoluene				
Dichloromethane				

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675008  
RFADATA  
28SS02501  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675011  
RFADATA  
28SS02201  
05-AUG-94

DL

DL

DL

DL

VALUE

QUAL UNITS

VALUE

QUAL UNITS

DL

VALUE

QUAL UNITS

9KG SVOC (8270+24)	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
N-Nitrosodimethylamine	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Phenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Aniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis (2-Chloroethyl) ether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,3-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,4-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzyl Alcohol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroisopropyl) ether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
N-Nitroso-di-n-propylamine	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachloroethane	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Nitrobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Isophorone	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dimethylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzoic acid	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroethoxy)methane	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2,4-Trichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Naphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorobutadiene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloro-3-methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylnaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorocyclopentadiene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,6-Trichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dimethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,5-Trichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Chloronaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthylene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,6-Dinitrotoluene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
3-Nitroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Nitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dibenzofuran	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrotoluene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Diethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675011  
RFADATA  
28SS02201  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

M7675008  
RFADATA  
28SS02501  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Fluorene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
4-Nitroaniline	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
4,6-Dinitro-2-methylphenol	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitrosodiphenylamine (1)	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
1,2-Diphenylhydrazine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
4-Bromophenyl-phenylether	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Hexachlorobenzene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Pentachlorophenol	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
Phenanthrene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Anthracene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Di-n-Butylphthalate	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Fluoranthene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Pyrene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Butylbenzylphthalate	700 U	ug/kg		700	680 U	ug/kg		680	680	710 U	ug/kg		710	690 U	ug/kg	690
3,3'-Dichlorobenzidine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benzo(a)anthracene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Chrysene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Bis(2-Ethylhexyl)phthalate	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Di-n-octylphthalate	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benzo(b)fluoranthene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benzo(k)fluoranthene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benzo(a)pyrene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Indeno(1,2,3-cd)pyrene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Dibenz(a,h)anthracene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benzo(g,h,i)perylene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
2-Picoline	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
Methyl methanesulfonate	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Ethyl methanesulfonate	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Acetophenone	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitrosopiperidine	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
Phenyl-tart-butylamine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
2,6-Dichlorophenol	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitroso-di-n-butylamine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitrosodiethylamine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitrosopyrrolidine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Benidine	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
1,2,4,5-Tetrachlorobenzene	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
Pentachlorobenzene	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
1-Naphthylamine	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
2-Naphthylamine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
3,4,6-Tetrachlorophenol	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Phenacetin	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
4-Aminobiphenyl	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
Pentachloronitrobenzene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Promiside	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
p-(Dimethylamino)azobenzene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
7,12-Dimethylbenz(A)anthracene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
3-Methylcholanthrene	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
Pyridine	1700 U	ug/kg		1700	1600 U	ug/kg		1600	1600	1700 U	ug/kg		1700	1700 U	ug/kg	1700
N-Nitrosomethyl ethylamine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350
N-Nitrosomorpholine	350 U	ug/kg		350	340 U	ug/kg		340	340	350 U	ug/kg		350	350 U	ug/kg	350

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684004  
RFADATA  
28SS01901  
06-AUG-94

M7684005  
RFADATA  
28SS02001  
06-AUG-94

M7675012  
RFADATA  
28SS02101  
05-AUG-94

M7675013  
RFADATA  
28SS021010  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Fluorene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
4-Nitroaniline	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
4,6-Dinitro-2-methylphenol	360 U	ug/kg		360	350 U	ug/kg		350	3400 U	ug/kg		3400	360 U	ug/kg		360
N-Nitrosodiphenylamine (1)	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
1,2-Diphenylhydrazine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
4-Bromophenyl-phenylether	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Hexachlorobenzene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Pentachlorophenol	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
Phenanthrene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Anthracene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Di-n-Butylphthalate	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	52 J	ug/kg		360
Fluoranthene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Pyrene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Butylbenzylphthalate	720 U	ug/kg		720	700 UJ	ug/kg		350	1400 U	ug/kg		1400	720 U	ug/kg		720
3,3'-Dichlorobenzidine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benzo(a)anthracene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Chrysene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
bis(2-Ethylhexyl)phthalate	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	44 J	ug/kg		360
Di-n-octylphthalate	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benzo(b)fluoranthene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benzo(k)fluoranthene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benzo(a)pyrene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Indeno(1,2,3-cd)pyrene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Dibenz(a,h)anthracene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benzo(g,h,i)perylene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
2-Picoline	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
Methyl methanesulfonate	360 U	ug/kg		360	350 U	ug/kg		350	710 UJ	ug/kg		710	360 UJ	ug/kg		360
Ethyl methanesulfonate	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Acetophenone	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
N-Nitrosopiperidine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Phenyl-tert-butylamine	1700 UJ	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
2,6-Dichlorophenol	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
N-Nitroso-di-n-butylamine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
N-Nitrosodiphenylamine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
N-Nitrosopiperidine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Benztidine	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 UJ	ug/kg		3400	1700 UJ	ug/kg		1700
1,2,4,5-Tetrachlorobenzene	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
Pentachlorobenzene	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
1-Naphthylamine	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
2-Naphthylamine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
2,3,4,6-Tetrachlorophenol	360 UJ	ug/kg		360	350 U	ug/kg		350	710 UJ	ug/kg		710	360 U	ug/kg		360
Phenacetin	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 UJ	ug/kg		3400	1700 UJ	ug/kg		1700
4-Aminobiphenyl	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 UJ	ug/kg		3400	1700 UJ	ug/kg		1700
Pentachloronitrobenzene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Promamide	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
p-(Dimethylamino)azobenzene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
7,12-Dimethylbenz(a)Anthracene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
3-Methylcholanthrene	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Pyridine	1700 U	ug/kg		1700	1700 U	ug/kg		1700	3400 U	ug/kg		3400	1700 U	ug/kg		1700
N-Nitrosomethyl ethylamine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
N-Nitrosomorpholine	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684004  
RFADATA  
28SS01901  
06-AUG-94

M7684005  
RFADATA  
28SS02001  
06-AUG-94

M7675012  
RFADATA  
28SS02101  
05-AUG-94

M7675013  
RFADATA  
28SS02101D  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
Hexachloropropene	1700 UJ	UJ	ug/kg	1700	1700 U	UJ	ug/kg	1700	3400 R	R	ug/kg	3400	1700 R	R	ug/kg	1700
p-Phenylenediamine	17000 UJ	UJ	ug/kg	1700	17000 UJ	UJ	ug/kg	1700	34000 U	UJ	ug/kg	34000	17000 U	UJ	ug/kg	17000
Serfrole	1700 U	UJ	ug/kg	1700	1700 U	UJ	ug/kg	1700	3400 U	UJ	ug/kg	3400	1700 U	UJ	ug/kg	1700
Jacobafrole	1700 U	UJ	ug/kg	1700	1700 U	UJ	ug/kg	1700	3400 U	UJ	ug/kg	3400	1700 U	UJ	ug/kg	1700
1,4-Naphthoquinone	36000 U	UJ	ug/kg	36000	35000 U	UJ	ug/kg	35000	71000 U	UJ	ug/kg	71000	36000 U	UJ	ug/kg	36000
1,3-Dinitrobenzene	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
5-Nitro-o-toluidine	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
1,3,5-Trinitrobenzene	360 UJ	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
4-Nitroquinoline-1-oxide	17000 R	R	ug/kg	1700	17000 R	R	ug/kg	1700	34000 UJ	UJ	ug/kg	34000	17000 UJ	UJ	ug/kg	17000
Methapyrilene	1700 U	UJ	ug/kg	1700	1700 UJ	UJ	ug/kg	1700	3400 UJ	UJ	ug/kg	3400	1700 UJ	UJ	ug/kg	1700
3,3'-Dimethylbenzidine	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 UJ	UJ	ug/kg	710	360 UJ	UJ	ug/kg	360
Hexachlorophene	17000 R	R	ug/kg	1700	17000 R	R	ug/kg	1700	34000 UJ	UJ	ug/kg	34000	17000 UJ	UJ	ug/kg	17000
Aramite	1700 UJ	UJ	ug/kg	1700	1700 UJ	UJ	ug/kg	1700	3400 U	UJ	ug/kg	3400	1700 U	UJ	ug/kg	1700
2-Chlorophenol	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
3- & 4-Methylphenol (2)	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
4-Methylphenol	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
Diphenylamine	1700 UJ	UJ	ug/kg	1700	1700 U	UJ	ug/kg	1700	3400 R	R	ug/kg	3400	1700 R	R	ug/kg	1700
Hexachloropropene	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360
2-Acetylaminofluorene	1700 UJ	UJ	ug/kg	1700	1700 U	UJ	ug/kg	1700	3400 R	R	ug/kg	3400	1700 R	R	ug/kg	1700
	360 U	UJ	ug/kg	360	350 U	UJ	ug/kg	350	710 U	UJ	ug/kg	710	360 U	UJ	ug/kg	360

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

MAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684015  
RFADATA  
28SS01501  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684018  
RFADATA  
28SS01801  
06-AUG-94

	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS
o-Toluidine	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
Hexachloropropene	1700 UJ	1700	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg	1800 UJ	1800	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg
p-Phenylenediamine	1700 UJ	1700	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg	1800 UJ	1800	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg
Safrole	1700 U	1700	U	ug/kg	1700 U	1700	U	ug/kg	1800 U	1800	U	ug/kg	1700 U	1700	U	ug/kg
Isosafrole	35000 U	35000	U	ug/kg	35000 U	35000	U	ug/kg	37000 U	37000	U	ug/kg	36000 U	36000	U	ug/kg
1,4-Naphthoquinone	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
1,3-Dinitrobenzene	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
5-Nitro-o-toluidine	350 UJ	350	UJ	ug/kg	350 UJ	350	UJ	ug/kg	370 UJ	370	UJ	ug/kg	360 UJ	360	UJ	ug/kg
1,3,5-Trinitrobenzene	17000 R	1700	R	ug/kg	17000 R	1700	R	ug/kg	18000 R	1800	R	ug/kg	17000 R	1700	R	ug/kg
4-Nitroquinoline-1-oxide	1700 U	1700	U	ug/kg	1700 U	1700	U	ug/kg	1800 U	1800	U	ug/kg	1700 U	1700	U	ug/kg
Methapyrene	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
3,3'-Dimethylbenzidine	17000 R	17000	R	ug/kg	17000 R	17000	R	ug/kg	18000 R	18000	R	ug/kg	17000 R	17000	R	ug/kg
Hexachlorophene	1700 UJ	1700	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg	1800 UJ	1800	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg
Arenite	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
2-Chlorophenol	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
3- & 4-Methylphenol (2)	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
4-Methylphenol	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
Diphenylamine	1700 UJ	1700	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg	1800 UJ	1800	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg
Hexachloropropene	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg
2-Acetylaminofluorene	1700 UJ	1700	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg	1800 UJ	1800	UJ	ug/kg	1700 UJ	1700	UJ	ug/kg
	350 U	350	U	ug/kg	350 U	350	U	ug/kg	370 U	370	U	ug/kg	360 U	360	U	ug/kg

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (6270) ANALYTICAL RUN.



**NAVSTA HAYPORT**

### RFA Surface Soil Data

Lab Sample Number:   
 Site   
 Locator   
 Collect Date:

M7684004  
 RFADATA  
 28SS01901  
 06-AUG-94  
 QUAL UNIT

H7684005  
 RFADATA  
 28SS02001  
 06-AUG-94

W7675012  
RFADATA  
28SS02101  
05-AUG-94

H7675013  
RFADATA  
28SS021010  
05-AUG-94

10

**VALUE**

10

LENT 1913

**WILEY**

2

44-38861-104

11

1

06-AUG-94

**by/bn**

8KG SVOC (9270+24)  
 N-Nitrosodimethylamine  
 Phenol  
 Aniline  
 bis (2-Chloroethyl) ether  
 1,3-Dichlorobenzene  
 1,4-Dichlorobenzene  
 Benzyl Alcohol  
 1,2-Dichlorobenzene  
 2-Methylphenol  
 bis(2-Chloroisopropyl) ether  
 N-Nitroso-di-n-propylamine  
 Hexachloroethane  
 Nitrobenzene  
 Isophorone  
 2-Nitrophenol  
 2,4-Dimethylphenol  
 Benzoic acid  
 bis(2-Chloroethoxy)methane  
 2,4-Dichlorophenol  
 1,2,4-Trichlorobenzene  
 Naphthalene  
 4-Chloroaniline  
 Hexachlorobutadiene  
 4-Chloro-3-methylphenol  
 2-Methylnaphthalene  
 Hexachlorocyclopentadiene  
 2,4,6-Trichlorophenol  
 Dimethylthalate  
 2,4,5-Trichlorophenol  
 2-Chloronaphthalene  
 2-Nitroaniline  
 Acenaphthylene  
 2,6-Dinitrotoluene  
 3-Nitroaniline  
 Acenaphthene  
 2,4-Dinitrophenol  
 Dibenzofuran  
 2,4-Dinitrotoluene  
 Diethylthalate

[illegible][illegible][illegible][illegible]





# MAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684018  
RFADATA  
28SS01801  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684015  
RFADATA  
28SS01501  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Fluorene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
4-Nitroaniline	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
4,6-Dinitro-2-methylphenol	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
N-Nitrosodiphenylamine (1)	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
1,2-Diphenylhydrazine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
4-Bromophenyl-phenylether	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Hexachlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Pentachlorophenol	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Phenanthrene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Anthracene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Di-n-Butylphthalate	92	J	ug/kg	350	160	J	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Pyrene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Butylbenzylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
3,3'-Dichlorobenzidine	700	U	ug/kg	700	710	U	ug/kg	710	740	U	ug/kg	740	720	U	ug/kg	720
Benzofluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Chrysene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
bis(2-Ethylhexyl)phthalate	37	J	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Di-n-octylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Benzofluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Benzofluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Benzofluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Indeno(1,2,3-cd)pyrene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Dibenz(a,h)anthracene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Benzofluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
2-Picoline	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Methyl methanesulphonate	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Ethyl methanesulphonate	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Acetophenone	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitrosopiperidine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Phenyl-tert-butylamine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
2,6-Dichlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitroso-di-n-butylamine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitrosodiphenylamine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitrosopyrrolidine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Benzidine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
1,2,4,5-Tetrachlorobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Pentachlorobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
1-Naphthylamine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
2-Naphthylamine	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
2,3,4,6-Tetrachlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
Phenacetin	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
4-Aminobiphenyl	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Pentachloronitrobenzene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Pronamide	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
p-(Dimethylamino)azobenzene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
7,12-Dimethylbenz(A)Anthracene	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
3-Methylcholanthrene	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1800	U	ug/kg	1800	1700	U	ug/kg	1700
Pyridine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitrosomethylamine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitrosomorpholine	350	U	ug/kg	350	350	U	ug/kg	350	370	U	ug/kg	370	360	U	ug/kg	360

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684011  
RFADATA  
28SS01201  
06-AUG-94

M7684012  
RFADATA  
28SS01301  
06-AUG-94

M7684013  
RFADATA  
28SS01401  
06-AUG-94

M7684014  
RFADATA  
28SS01401D  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Chlorophenyl-phenylether	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Fluorene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
4-Nitroaniline	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
4,6-Dinitro-2-methylphenol	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
N-Nitrosodiphenylamine (1)	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
1,2-Diphenylhydrazine	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
4-Bromophenyl-phenylether	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Hexachlorobenzene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Pentachlorophenol	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Phenanthrene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Anthracene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Di-n-Butylphthalate	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Fluoranthene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Pyrene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Butylbenzylphthalate	83 J		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
3,3'-Dichlorobenzidine	720 U		ug/kg		700 U		ug/kg		700		ug/kg		710		ug/kg	
Benzo(a)anthracene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Chrysene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
1,2-Ethylhexylphthalate	41 J		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Di-n-octylphthalate	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Benzo(b)fluoranthene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Benzo(k)fluoranthene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Benzo(a)pyrene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Indeno(1,2,3-cd)pyrene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Dibenz(a,h)anthracene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Benzo(g,h,i)perylene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
2-Picoline	1700 UJ		ug/kg		1700 UJ		ug/kg		1700		ug/kg		1700		ug/kg	
Methyl methanesulfonate	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Ethyl methanesulfonate	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
Acetophenone	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
N-Nitrosopiperidine	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
Phenyl-tert-butylamine	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
2,6-Dichlorophenol	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
N-Nitroso-di-n-butylamine	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
N-Nitrosodiphenylamine	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
N-Nitrosopyrrolidine	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
Benzidine	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
1,2,4,5-Tetrachlorobenzene	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
Pentachlorobenzene	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
1-Naphthylamine	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
2-Naphthylamine	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
2,3,6-Tetrachlorophenol	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Phenacetin	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
4-Aminobiphenyl	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
Pentachloronitrobenzene	1700 U		ug/kg		1700 U		ug/kg		1700		ug/kg		1700		ug/kg	
Propionide	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
p-(Dimethylamino)azobenzene	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
7,12-Dimethylbenz(A)Anthracene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
3-Methylcholanthrene	360 U		ug/kg		350 U		ug/kg		350		ug/kg		350		ug/kg	
Pyridine	1700 UJ		ug/kg		1700 UJ		ug/kg		1700		ug/kg		1700		ug/kg	
N-Nitrosomethylamine	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	
N-Nitrosomorpholine	360 UJ		ug/kg		350 UJ		ug/kg		350		ug/kg		350		ug/kg	

**HAYSTA MAYPORT**

W7684011  
RFADATA  
28SS01201  
06-AUG-94

W7684013  
RFADATA  
28SS01401

[illegible]

U - NOT DETECTED R - RESULT IS REJECTED

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7698013  
RFADATA  
28SS00801  
10-AUG-94

M7675019  
RFADATA  
28SS00901  
05-AUG-94

M7684010  
RFADATA  
28SS01101  
06-AUG-94

M7684009  
RFADATA  
28SS01101  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	350	U	ug/kg	350	350	U	ug/kg	350	360	UJ	ug/kg	360	1700	U	ug/kg	1700
Hexachloropropene	1800	U	ug/kg	1800	1700	R	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
p-Phenylenediamine	18000	UJ	ug/kg	1800	1700	U	ug/kg	1700	1700	UJ	ug/kg	1700	1700	U	ug/kg	1700
Safrole	1800	U	ug/kg	1800	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
Isosafrole	1800	U	ug/kg	1800	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
1,6-Naphthoquinone	35000	U	ug/kg	35000	35000	U	ug/kg	35000	36000	U	ug/kg	36000	36000	U	ug/kg	36000
1,3-Dinitrobenzene	350	UJ	ug/kg	350	350	U	ug/kg	350	360	UJ	ug/kg	360	360	UJ	ug/kg	360
5-Nitro-o-toluidine	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360
1,3,5-Trinitrobenzene	350	UJ	ug/kg	350	350	U	ug/kg	350	360	UJ	ug/kg	360	360	UJ	ug/kg	360
4-Nitroquinoline-1-oxide	18000	U	ug/kg	18000	17000	UJ	ug/kg	17000	17000	R	ug/kg	17000	17000	R	ug/kg	17000
Methapyrene	1800	UJ	ug/kg	1800	1700	U	ug/kg	1700	1700	UJ	ug/kg	1700	1700	UJ	ug/kg	1700
3,3'-Dimethylbenzidine	350	U	ug/kg	350	350	UJ	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360
Hexachlorophene	18000	U	ug/kg	18000	17000	UJ	ug/kg	17000	17000	R	ug/kg	17000	17000	R	ug/kg	17000
Aramite	1800	U	ug/kg	1800	1700	U	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
2-Chlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360
3- & 4-Methylphenol (2)	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360
4-Methylphenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360
Diphenylamine	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-	-	-	ug/kg	-
Hexachloropropene	1800	U	ug/kg	1800	1700	R	ug/kg	1700	1700	U	ug/kg	1700	1700	U	ug/kg	1700
2-Acetylaminofluorene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684011  
RFADATA  
28SS01201  
06-AUG-94

M7684012  
RFADATA  
28SS01301  
06-AUG-94

M7684013  
RFADATA  
28SS01401  
06-AUG-94

M7684014  
RFADATA  
28SS01401D  
06-AUG-94

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

DL

QUAL UNITS

VALUE

BKG SVOC (8270+24)	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
M-Nitroacetylamine	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Phenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Aniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis (2-Chloroethyl) ether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,3-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,4-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzyl Alcohol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroisopropyl) ether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
M-Nitroso-di-n-propylamine	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachloroethane	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Nitrobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Isophorone	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dimethylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Benzoic acid	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
bis(2-Chloroethoxy)methane	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
1,2,4-Trichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Naphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorobutadiene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Chloro-3-methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Methylnaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Hexachlorocyclopentadiene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,6-Trichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dimethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4,5-Trichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Chloronaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2-Nitroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthylene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,6-Dinitrotoluene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
3-Nitroaniline	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Acenaphthene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
4-Nitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Dibenzofuran	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
2,4-Dinitrotoluene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350
Diethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7698013  
RFADATA  
28SS00801  
10-AUG-94

M7675019  
RFADATA  
28SS00901  
05-AUG-94

M7684010  
RFADATA  
28SS01001  
06-AUG-94

M7684009  
RFADATA  
28SS01101  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG SVOC (8270+24)												
N-Nitrosodimethylamine	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Phenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Aniline	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
bis (2-Chloroethyl) ether	5 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
1,3-Dichlorobenzene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
1,4-Dichlorobenzene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Benzyl Alcohol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
1,2-Dichlorobenzene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2-Methylphenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
bis(2-Chloroisopropyl) ether	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
N-Nitroso-di-n-propylamine	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Nitrobenzene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Isophorone	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2-Nitrophenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4-Dimethylphenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Benzoic acid	1800 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
bis(2-Chloroethoxy)methane	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4-Dichlorophenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
1,2,4-Trichlorobenzene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Naphthalene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
4-Chloroaniline	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Hexachlorobutadiene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
4-Chloro-3-methylphenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2-Methylnaphthalene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Hexachlorocyclopentadiene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4,6-Trichlorophenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Dimethylphthalate	1800 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4,5-Trichlorophenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2-Chloronaphthalene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2-Nitroaniline	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Acenaphthylene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,6-Dinitrotoluene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
3-Nitroaniline	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Acenaphthene	1800 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4-Dinitrophenol	1800 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
4-Nitrophenol	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Dibenzofuran	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
2,4-Dinitrotoluene	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		
Diethylphthalate	350 U	ug/kg			350 U	ug/kg			360 U	ug/kg		

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:   
 Site   
 locator   
 Collect Date:

M7698013  
RFADATA  
28SS00801  
10-AUG-94

M7675019  
RFADATA  
28SS00901  
05-AUG-94

M7684010  
RFADATA  
28SS01001  
06-AUG-94  
CIVIL UNIT

**M7684009**  
**RFADATA**  
**28SS01101**  
**06-AUG-94**  
**0001 INVT**

Collect Date:	10-AUG-94			05-AUG-94			03-AUG-94			QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	
4-Chlorophenyl-phenylether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Fluorene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
4-Nitroaniline	1800 UJ	ug/kg	350	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
4,6-dinitro-2-methylphenol	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
N-Nitrosodiphenylamine (1)	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
1,2-bisphenylhydrazine	350 UJ	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
4-Bromophenyl-phenylether	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Hexachlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Pentachlorophenol	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Phenanthrene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Anthracene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Di-n-Butylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Fluoranthene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Pyrene	350 U	ug/kg	350	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Butylbenzylphthalate	710 U	ug/kg	710	690 UJ	ug/kg	350	720 U	ug/kg	720	720 U	ug/kg	720	720 U	ug/kg	720	720 U	ug/kg	720
3,3'-Dichlorobenzidine	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Benzo(a)anthracene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Chrysene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
bis(2-Ethylhexyl)phthalate	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Di-n-octylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Benzo(b)fluoranthene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Benzo(k)fluoranthene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Benzo(a)pyrene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Indeno(1,2,3-cd)pyrene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
p-benz(a,h)anthracene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
Benzo(g,h,i)perylene	350 U	ug/kg	350	350 U	ug/kg	350	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360
2-Picoline	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 UJ	ug/kg	360	1700 UJ	ug/kg	360	1700 UJ	ug/kg	360	1700 UJ	ug/kg	360
Methyl methanesulphonate	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
Ethyl methanesulphonate	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
Acetophenone	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
N-Nitrosopiperidine	1800 UJ	ug/kg	350	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Phenyl-tert-butylamine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
2,6-Dichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
N-Nitroso-di-n-butylamine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
N-Nitrosodiphenylamine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
N-Nitrosopyrrolidine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
Benzydine	1800 U	ug/kg	1800	1700 UJ	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
1,2,4,5-Tetrachlorobenzene	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Pentachlorobenzene	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
1-Naphthylamine	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
2-Naphthylamine	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
2,3,4,6-Tetrachlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
Phenacetin	350 UJ	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
4-Aminobiphenyl	1800 U	ug/kg	1800	1700 UJ	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Pentachloronitrobenzene	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
Pronealide	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
p-(Dimethylamino)azobenzene	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
7,12-dimethylbenz(A)Anthracene	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
3-Methylcholanthrene	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
Pyridine	1800 U	ug/kg	1800	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700	1700 U	ug/kg	1700
N-Nitrosomethyl ethylamine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360
N-Nitrosomorpholine	350 U	ug/kg	350	350 U	ug/kg	350	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360	360 UJ	ug/kg	360



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

M7675018  
RFADATA  
28SS00701  
05-AUG-94

	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS	VALUE	DL	QUAL	UNITS
4-Chlorophenyl-phenylether	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Fluorene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
4-Nitroaniline	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
4,6-Dinitro-2-methylphenol	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
N-Nitrosodiphenylamine (1)	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
1,2-Diphenylhydrazine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
4-Bromophenyl-phenylether	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Hexachlorobenzene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Pentachlorophenol	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
Phenanthrene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Anthracene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Di-n-Butylphthalate	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Fluoranthene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Pyrene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Butylbenzylphthalate	2800 U	2800	U	ug/kg	2800 U	2800	U	ug/kg	2800 U	2800	U	ug/kg	2800 U	2800	U	ug/kg
3,3'-Dichlorobenzidine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benzo(a)anthracene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Chrysene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Bis(2-Ethylhexyl)phthalate	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Di-n-octylphthalate	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benzo(b)fluoranthene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benzo(k)fluoranthene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benzo(a)pyrene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Indeno(1,2,3-cd)pyrene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Dibenz(a,h)anthracene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benzo(g,h,i)perylene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
2-Picoline	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
Methyl methanesulphonate	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Ethyl methanesulphonate	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Acetophenone	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
N-Nitrosopiperidine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Phenyl-tert-butylamine	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
2,6-Dichlorophenol	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
N-Nitroso-di-n-butylamine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
N-Nitrosodiphenylamine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
N-Nitrosopyrrolidine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Benazoline	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
1,2,4,5-Tetrachlorobenzene	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
Pentachlorobenzene	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
1-Naphthylamine	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
2-Naphthylamine	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
2,3,6-Tetrachlorophenol	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Phenacetin	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
4-Aminobiphenyl	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
Pentachloronitrobenzene	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
Prenamide	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
p-(Dimethylamino)azobenzene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
7,12-Dimethylbenz(A)anthracene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
3-Methylcholanthrene	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
Pyridine	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg	6700 U	6700	U	ug/kg
N-Nitrosomethylamine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg
N-Nitrosomorpholine	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg	1400 U	1400	U	ug/kg

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

M7675018  
RFADATA  
28SS00701  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
o-Toluidine	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
Hexachloropropene	6700 R	R	ug/kg	6700	6800 R	R	ug/kg	6800	3400 R	R	ug/kg	3400	1700 R	R	ug/kg	1700
p-Phenylenediamine	6700 U	U	ug/kg	6700	6800 U	U	ug/kg	6800	3400 U	U	ug/kg	3400	1700 U	U	ug/kg	1700
Serfrole	6700 U	U	ug/kg	6700	6800 U	U	ug/kg	6800	3400 U	U	ug/kg	3400	1700 U	U	ug/kg	1700
Isoafrrole	140000 U	U	ug/kg	140000	140000 U	U	ug/kg	140000	71000 U	U	ug/kg	71000	35000 U	U	ug/kg	35000
1,4-Naphthoquinone	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
1,3-Dinitrobenzene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
5-Nitro-o-toluidine	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
1,3,5-Trinitrobenzene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
4-Nitroquinoline-1-oxide	6700 U	U	ug/kg	6700	6800 U	U	ug/kg	6800	3400 U	U	ug/kg	3400	1700 U	U	ug/kg	1700
Methapyrene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
3,3'-Dimethylbenzidine	6700 U	U	ug/kg	6700	6800 U	U	ug/kg	6800	3400 U	U	ug/kg	3400	1700 U	U	ug/kg	1700
Hexachlorophene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
Aramite	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
2-Chlorophenol	6700 U	U	ug/kg	6700	6800 U	U	ug/kg	6800	3400 U	U	ug/kg	3400	1700 U	U	ug/kg	1700
3- & 4-Methylphenol (2)	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
4-Methylphenol	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
Diphenylamine	6700 R	R	ug/kg	6700	6800 R	R	ug/kg	6800	3400 R	R	ug/kg	3400	1700 R	R	ug/kg	1700
Hexachloropropene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350
2-Acetylaminofluorene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	710 U	U	ug/kg	710	350 U	U	ug/kg	350

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SYOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675014  
RFADATA  
28SS00301  
05-AUG-94

M7684003  
RFADATA  
28SS002010  
06-AUG-94

M7684002  
RFADATA  
28SS00201  
06-AUG-94

M7684001  
RFADATA  
28SS00101  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Metapyrene	1800	UJ	ug/kg		1800	UJ	ug/kg		1800	UJ	ug/kg		1800	UJ	ug/kg	
3,3'-Dimethylbenzidine	370	U	ug/kg		360	U	ug/kg		360	U	ug/kg		360	U	ug/kg	
Hexachlorophene	18000	R	ug/kg		18000	R	ug/kg		18000	R	ug/kg		18000	R	ug/kg	
Aromite	1800	UJ	ug/kg		1800	UJ	ug/kg		1800	UJ	ug/kg		1800	UJ	ug/kg	
2-Chlorophenol	370	U	ug/kg		360	U	ug/kg		360	U	ug/kg		360	U	ug/kg	
3- & 4-Methylphenol (2)	370	U	ug/kg		360	U	ug/kg		360	U	ug/kg		360	U	ug/kg	
4-Methylphenol	-	-	ug/kg		-	-	ug/kg		-	-	ug/kg		-	-	ug/kg	
Diphenylamine	-	-	ug/kg		-	-	ug/kg		-	-	ug/kg		-	-	ug/kg	
Hexachloropropene	1800	U	ug/kg		1800	U	ug/kg		1800	U	ug/kg		1800	U	ug/kg	
2-Acetylaminofluorene	370	U	ug/kg		360	U	ug/kg		360	U	ug/kg		360	U	ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

M7675018  
RFADATA  
28SS00701  
05-AUG-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
-------	------	-------	----	-------	------	-------	----	-------	------	-------	----	-------	------	-------	----

ug/kg

8KG SVOC (8270+24)	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
N-Nitrodimethylamine	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Phenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Aniline	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
bis (2-Chloroethyl) ether	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,3-Dichlorobenzene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,4-Dichlorobenzene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Phenyl Alcohol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,2-Dichlorobenzene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2-Methylphenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
bis(2-Chloroisopropyl) ether	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
N-Nitroso-di-n-propylamine	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Hexachloroethane	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Nitrobenzene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Isophorone	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2-Nitrophenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4-Dimethylphenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Benzoic acid	6700 U	ug/kg	6700	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
bis(2-Chloroethoxy)methane	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4-Dichlorophenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,2,4-Trichlorobenzene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Naphthalene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
4-Chloroaniline	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Hexachlorobutadiene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
4-Chloro-3-methylphenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2-Methylnaphthalene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Hexachlorocyclopentadiene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4,6-Trichlorophenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Dimethylphthalate	6700 U	ug/kg	6700	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4,5-Trichlorophenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2-Chloronaphthalene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2-Nitroaniline	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Acenaphthylene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,6-Dinitrotoluene	6700 U	ug/kg	6700	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
3-Nitroaniline	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Acenaphthene	6700 U	ug/kg	6700	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4-Dinitrophenol	6700 U	ug/kg	6700	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
4-Nitrophenol	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Dibenzofuran	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
2,4-Dinitrotoluene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
Diethylphthalate	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400

# NAVSTA MAYPORT

## RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684001  
RFADATA  
28SS00101  
06-AUG-94

M7684002  
RFADATA  
28SS00201  
06-AUG-94

M7684003  
RFADATA  
28SS00210  
06-AUG-94

M7675014  
RFADATA  
28SS00301  
05-AUG-94

ug/kg	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
8KG SVOC (8270+24)													
N-Nitrosodimethylamine	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Phenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Aniline	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
bis (2-Chloroethyl) ether	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
1,3-Dichlorobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
1,4-Dichlorobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Benzyl Alcohol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
1,2-Dichlorobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2-Methylphenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
bis(2-Chloroisopropyl) ether	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
N-Nitroso-di-n-propylamine	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Hexachloroethane	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Nitrobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Isophorone	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2-Nitrophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,4-Dimethylphenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Benzoic acid	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
bis(2-Chloroethoxy)methane	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,4-Dichlorophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
1,2,4-Trichlorobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Naphthalene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Chloroaniline	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Hexachlorobutadiene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Chloro-3-methylphenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2-Methylnaphthalene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Hexachlorocyclopentadiene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,6,6-Trichlorophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Dimethylphthalate	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,4,5-Trichlorophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2-Chloronaphthalene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2-Nitroaniline	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Acenaphthylene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,6-Dinitrotoluene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
3-Nitroaniline	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Acenaphthene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,4-Dinitrophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Nitrophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Dibenzofuran	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
2,4-Dinitrotoluene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Diethylphthalate	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Chlorophenyl phenylether	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Fluorene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Nitroaniline	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4,6-Dinitro-2-methylphenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
N-Nitrosodiphenylamine (1)	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
1,2-Diphenylhydrazine	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
4-Bromophenyl phenylether	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Hexachlorobenzene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Pentachlorophenol	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720
Phenanthrene	370	370 U	ug/kg		360	360 U	ug/kg		360	360 U	ug/kg		720

**MAVSTA MAYPORT**

RFADATA  
28SS00301  
05-AUG-94

[illegible]

## NAVSTA MAYPORT

VALUE	QUAL	UNITS
M7683005		
RFADATA		
28SS03301		
06-AUG-94		

VALUE	M7698012
	RFADATA
	28SS03401
	10-AUG-94
	Q141 UNIT

Collect Date:	06-AUG-94	06-AUG-94	10-AUG-94	10-AUG-94	10-AUG-94
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS
BKG VOCs (8240-11)					
Chloromethane	10 U	ug/kg		10 U	ug/kg
Bromomethane	10 U	ug/kg		10 U	ug/kg
Vinyl chloride	10 U	ug/kg		10 U	ug/kg
Chloroethane	17 U	ug/kg		17 U	ug/kg
Methylene chloride	27 U	ug/kg		27 U	ug/kg
Acetone	5 U	ug/kg		5 U	ug/kg
Carbon disulfide	5 U	ug/kg		5 U	ug/kg
1,1-Dichloroethane	5 U	ug/kg		5 U	ug/kg
1,1-Dichloroethene	5 U	ug/kg		5 U	ug/kg
1,2-Dichloroethane (total)	5 U	ug/kg		5 U	ug/kg
Chloroform	5 U	ug/kg		5 U	ug/kg
1,2-Dichloroethane	10 R	ug/kg		10 U	ug/kg
2-Butanone	5 U	ug/kg		5 U	ug/kg
1,1,1-Trichloroethane	5 U	ug/kg		5 U	ug/kg
Carbon tetrachloride	5 U	ug/kg		5 U	ug/kg
Bromodichloromethane	5 U	ug/kg		5 U	ug/kg
1,2-Dichloropropane	5 U	ug/kg		5 U	ug/kg
cis-1,3-Dichloropropene	5 U	ug/kg		5 U	ug/kg
Trichloroethane	5 U	ug/kg		5 U	ug/kg
Dibromochloromethane	5 U	ug/kg		5 U	ug/kg
1,1,2-Trichloroethane	5 U	ug/kg		5 U	ug/kg
Benzene	5 U	ug/kg		5 U	ug/kg
trans-1,3-Dichloropropene	5 U	ug/kg		5 U	ug/kg
Bromoform	10 U	ug/kg		10 U	ug/kg
4-Methyl-2-pentanone	10 U	ug/kg		10 U	ug/kg
2-Hexanone	5 U	ug/kg		5 U	ug/kg
Tetrachloroethane	5 U	ug/kg		5 U	ug/kg
1,1,2,2-Tetrachloroethane	5 U	ug/kg		5 U	ug/kg
Toluene	5 U	ug/kg		5 U	ug/kg
Chlorobenzene	5 U	ug/kg		5 U	ug/kg
Ethylbenzene	5 U	ug/kg		5 U	ug/kg
Styrene	5 U	ug/kg		5 U	ug/kg
Xylenes (total)	5 U	ug/kg		5 U	ug/kg
Trichlorofluoromethane	350 U	ug/kg		350 U	ug/kg
1,3-Dichlorobenzene	100 U	ug/kg		100 U	ug/kg
Acrolein	5 U	ug/kg		5 U	ug/kg
Iodomethane	5 U	ug/kg		5 U	ug/kg
1,4-Dichlorobenzene	100 U	ug/kg		100 U	ug/kg
Acrylonitrile	5 U	ug/kg		5 U	ug/kg
Dibromomethane	5 U	ug/kg		5 U	ug/kg



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7683005  
RFADATA  
28SS03301  
06-AUG-94

M7698012  
RFADATA  
28SS03401  
10-AUG-94

M7698011  
RFADATA  
28SS03501  
10-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	350	U	ug/kg	350	3600	U	ug/kg	3600	370	U	ug/kg	370
2-Chloroethylvinylether	10	U	ug/kg	10	10	U	ug/kg	10	11	U	ug/kg	11
Ethyl methacrylate	5	U	ug/kg	5	5	R	ug/kg	5	6	R	ug/kg	6
1,2,3-Trichloropropane	5	U	ug/kg	5	5	R	ug/kg	5	6	R	ug/kg	6
trans-1,4-Dichloro-2-butene	5	U	ug/kg	5	5	R	ug/kg	5	6	R	ug/kg	6
Isobutyl alcohol	210	U	ug/kg	210	210	R	ug/kg	210	220	R	ug/kg	220
1,1,1,2-Tetrachloroethane	5	U	ug/kg	5	5	R	ug/kg	5	6	R	ug/kg	6
1,2-Dibromo-3-chloropropane	110	U	ug/kg	110	10	R	ug/kg	10	11	R	ug/kg	11
1,2-Dibromoethane	5	U	ug/kg	5	5	R	ug/kg	5	6	R	ug/kg	6
1,4-Dioxane	210	R	ug/kg	210	520	R	ug/kg	520	550	R	ug/kg	550
3-Chloropropene	5	U	ug/kg	5	100	R	ug/kg	100	110	R	ug/kg	110
Acetonitrile	100	U	ug/kg	100	100	R	ug/kg	100	110	R	ug/kg	110
Chloroprene	5	U	ug/kg	5	21	R	ug/kg	21	22	R	ug/kg	22
Methacrylonitrile	10	U	ug/kg	10	10	R	ug/kg	10	11	R	ug/kg	11
Methyl methacrylate	10	U	ug/kg	10	3600	U	ug/kg	3600	370	U	ug/kg	370
Pentachloroethane	100	U	ug/kg	100	100	R	ug/kg	100	110	R	ug/kg	110
Propionitrile	10	U	ug/kg	10	10	U	ug/kg	10	11	U	ug/kg	11
Vinyl acetate	10	U	ug/kg	10	10	U	ug/kg	10	11	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.





# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675002  
RFADATA  
28SS03001  
05-AUG-94

M7675003  
RFADATA  
28SS03001D  
05-AUG-94

M7683001  
RFADATA  
28SS03101  
06-AUG-94

M7683002  
RFADATA  
28SS03201  
06-AUG-94

1,2-Dichlorobenzene  
2-Chloroethylvinylether  
Ethyl methacrylate  
1,2,3-Trichloropropane  
trans-1,4-Dichloro-2-butene  
Isobutyl alcohol  
1,1,1,2-Tetrachloroethane  
1,2-Dibromo-3-chloropropane  
1,2-Dibromoethane  
1,4-Dioxane  
3-Chloropropene  
Acetonitrile  
Chloroprene  
Methacrylonitrile  
Methyl methacrylate  
Pentachloroethane  
Propionitrile  
Vinyl acetate

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
10	U	ug/kg		10	U	ug/kg		10	U	ug/kg		11	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
210	U	ug/kg		210	U	ug/kg		210	U	ug/kg		220	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
110	U	ug/kg		110	U	ug/kg		110	U	ug/kg		120	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
210	R	ug/kg		210	R	ug/kg		220	R	ug/kg		220	R	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
100	U	ug/kg		100	U	ug/kg		110	U	ug/kg		110	U	ug/kg	
5	U	ug/kg		5	U	ug/kg		5	U	ug/kg		5	U	ug/kg	
10	U	ug/kg		10	U	ug/kg		10	U	ug/kg		11	U	ug/kg	
10	U	ug/kg		10	U	ug/kg		10	U	ug/kg		11	U	ug/kg	
100	U	ug/kg		100	U	ug/kg		100	U	ug/kg		110	U	ug/kg	
10	U	ug/kg		10	U	ug/kg		10	U	ug/kg		11	U	ug/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.

**Lab Sample Number:**

[illegible]

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675004  
RFADATA  
28SS02901  
05-AUG-94

M7675005  
RFADATA  
28SS02801  
05-AUG-94

M7675006  
RFADATA  
28SS02701  
05-AUG-94

M7675007  
RFADATA  
28SS02601  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-dichlorobenzene	350	U	ug/kg	350	5	U	ug/kg	5	350	U	ug/kg	350	350	U	ug/kg	350
2-Chloroethylvinylether	12	U	ug/kg	12	10	U	ug/kg	10	11	U	ug/kg	11	11	U	ug/kg	11
ethyl methacrylate	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2,3-Trichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,4-Dichloro-2-butene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
isobutyl alcohol	240	U	ug/kg	240	210	U	ug/kg	210	210	U	ug/kg	210	210	U	ug/kg	210
1,1,1,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dibromo-3-chloropropane	120	U	ug/kg	120	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
1,2-Dibromoethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,4-Dioxane	240	R	ug/kg	240	210	R	ug/kg	210	210	R	ug/kg	210	210	R	ug/kg	210
3-Chloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Acetonitrile	120	U	ug/kg	120	100	U	ug/kg	100	110	U	ug/kg	110	110	U	ug/kg	110
Chloroprene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Methacrylonitrile	12	U	ug/kg	12	10	U	ug/kg	10	11	U	ug/kg	11	11	U	ug/kg	11
Methyl methacrylate	12	U	ug/kg	12	10	U	ug/kg	10	11	U	ug/kg	11	11	U	ug/kg	11
Pentachloroethane	120	U	ug/kg	120	100	U	ug/kg	100	110	U	ug/kg	110	110	U	ug/kg	110
Propionitrile	12	U	ug/kg	12	10	U	ug/kg	10	11	U	ug/kg	11	11	U	ug/kg	11
vinyl acetate	12	U	ug/kg	12	10	U	ug/kg	10	11	U	ug/kg	11	11	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

NAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number: \_\_\_\_\_  
 Site \_\_\_\_\_  
 Locator \_\_\_\_\_  
 Collect Date: \_\_\_\_\_

M7675008  
 RFADATA  
 28SS02501  
 05-AUG-94

M7675009  
 RFADATA  
 28SS02401  
 05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

H7675011  
 RFADATA  
 28SS02201  
 05-AUG-94

5

**307WA**

10

## VALUE

五

4411E

11

22

2

[illegible]

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675011  
RFADATA  
28SS02201  
05-AUG-94

M7675010  
RFADATA  
28SS02301  
05-AUG-94

M7675009  
RFADATA  
28SS02401  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	5	U	ug/kg	5	340	U	ug/kg	340	5	U	ug/kg	350
2-Chloroethylvinylether	11	U	ug/kg	11	10	U	ug/kg	10	10	U	ug/kg	10
Ethyl methacrylate	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2,3-Trichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,4-Dichloro-2-butene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Isobutyl alcohol	220	U	ug/kg	220	210	U	ug/kg	210	210	U	ug/kg	210
1,1,1,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dibromo-3-chloropropane	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
1,2-Dibromoethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,4-Dioxane	220	R	ug/kg	220	210	R	ug/kg	210	210	R	ug/kg	210
3-Chloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Acetonitrile	110	U	ug/kg	110	100	U	ug/kg	100	100	U	ug/kg	100
Chloroprene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Methacrylonitrile	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Methyl methacrylate	11	U	ug/kg	11	10	U	ug/kg	10	10	U	ug/kg	10
Pentachloroethane	11	U	ug/kg	11	10	U	ug/kg	10	10	U	ug/kg	10
Propionitrile	110	U	ug/kg	110	100	U	ug/kg	100	100	U	ug/kg	100
Vinyl acetate	11	U	ug/kg	11	10	U	ug/kg	10	10	U	ug/kg	10

U = NOT DETECTED R = RESULT IS REJECTED  
DL = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
ADDITIONAL LISTINGS OF RESULTS FOR 1,2,3,4 AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SYOC (8270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684004  
RFADATA  
28SS01901  
06-AUG-94

M7684005  
RFADATA  
28SS02001  
06-AUG-94

M7675012  
RFADATA  
28SS02101  
05-AUG-94

M7675013  
RFADATA  
28SS021010  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG VOCs (8260+11)																
Chloromethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Bromomethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Vinyl chloride	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Chloroethene	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Methylene chloride	8 U	ug/kg		8	8 U	ug/kg		8	9 U	ug/kg		9	5 U	ug/kg		5
Acetone	25 U	ug/kg		25	24 U	ug/kg		24	53 U	ug/kg		53	31 U	ug/kg		31
Carbon disulfide	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethene (total)	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Chloroform	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethane	11 R	ug/kg		11	11 R	ug/kg		11	11 R	ug/kg		11	11 R	ug/kg		11
2-Butanone	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1,1-Trichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Carbon tetrachloride	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Bromodichloromethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloropropane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
cis-1,3-Dichloropropene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Trichloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Dibromochloromethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2-Trichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Benzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
trans-1,3-Dichloropropene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Bromoform	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
4-Methyl-2-pentene	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
2-Hexanone	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Tetrachloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2,2-Tetrachloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Toluene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Chlorobenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Ethylbenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Styrene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Xylenes (total)	360 U	ug/kg		360	350 U	ug/kg		350	710 U	ug/kg		710	360 U	ug/kg		360
Trichlorofluoromethane	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110
1,3-Dichlorobenzene	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Acrolein	360 U	ug/kg		360	350 U	ug/kg		350	5 U	ug/kg		5	360 U	ug/kg		360
Iodomethane	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110
1,4-dichlorobenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Acrylonitrile																
Dibromomethane																

ug/kg



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684004  
RFADATA  
28SS01901  
06-AUG-94

M7684005  
RFADATA  
28SS02001  
06-AUG-94

M7675012  
RFADATA  
28SS02101  
05-AUG-94

M7675013  
RFADATA  
28SS02101D  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	360	U	ug/kg	360	350	U	ug/kg	350	710	U	ug/kg	710	340	U	ug/kg	340
2-Chloroethylvinylether	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Ethyl methacrylate	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2,3-Trichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,4-Dichloro-2-butene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Isobutyl alcohol	210	U	ug/kg	210	220	U	ug/kg	220	210	U	ug/kg	210	220	U	ug/kg	220
1,1,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dibromo-3-chloropropane	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
1,2-Dibromoethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,4-Dioxane	210	R	ug/kg	210	220	R	ug/kg	220	210	R	ug/kg	210	220	R	ug/kg	220
3-Chloropropene	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
Acetonitrile	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chloroprene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Methacrylonitrile	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Methyl methacrylate	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Pentachloroethane	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
Propionitrile	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl acetate	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
TV = ADDITIONAL LISTINGS OF RESULTS FOR 1,2; 1,3; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684015  
RFADATA  
28SS01501  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684018  
RFADATA  
28SS01801  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG VOCs (B240-11)																
Chloromethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Bromomethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Vinyl chloride	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Chloroethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Methylene chloride	9 U	ug/kg		9	5 U	ug/kg		5	5 U	ug/kg		5	11 U	ug/kg		11
Acetone	31 U	ug/kg		31	24 U	ug/kg		24	29 U	ug/kg		29	40 U	ug/kg		40
Carbon disulfide	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethane (total)	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Chloroform	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
2-Butanone	11 R	ug/kg		11	11 R	ug/kg		11	11 R	ug/kg		11	11 R	ug/kg		11
1,1,1-Trichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Carbon tetrachloride	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Bromodichloromethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloropropane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
cis-1,3-Dichloropropene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Trichloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Dibromochloromethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2-Trichloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Benzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
trans-1,3-Dichloropropene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Bromoform	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
4-Methyl-2-pentanone	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
2-Heptanone	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Tetrachloroethene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2,2-Tetrachloroethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Toluene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Chlorobenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Ethylbenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Styrene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Xylenes (total)	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Trichlorofluoromethane	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
1,3-Dichlorobenzene	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5
Acrolein	350 U	ug/kg		350	350 U	ug/kg		350	370 U	ug/kg		370	360 U	ug/kg		360
Iodoethane	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110
1,4-Dichlorobenzene	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Acrylonitrile	350 U	ug/kg		350	350 U	ug/kg		350	370 U	ug/kg		370	360 U	ug/kg		360
Dibromomethane	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110	110 U	ug/kg		110
	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5	5 U	ug/kg		5

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684015  
RFADATA  
28SS01501  
06-AUG-94

M7684016  
RFADATA  
28SS01601  
06-AUG-94

M7684017  
RFADATA  
28SS01701  
06-AUG-94

M7684018  
RFADATA  
28SS01801  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	350	U	ug/kg	350	5	U	ug/kg	5	5	U	ug/kg	5	360	U	ug/kg	360
2-Chloroethylvinylether	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Ethyl methacrylate	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2,3-Trichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,4-Dichloro-2-butene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Isobutyl alcohol	210	U	ug/kg	210	220	U	ug/kg	220	220	U	ug/kg	220	220	U	ug/kg	220
1,1,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dibromo-3-chloropropane	110	U	ug/kg	110	11	U	ug/kg	11	110	U	ug/kg	110	110	U	ug/kg	110
1,2-Dibromoethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,4-Dioxane	210	R	ug/kg	210	220	R	ug/kg	220	220	R	ug/kg	220	220	R	ug/kg	220
3-Chloropropene	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
Acetonitrile	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chlorophene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Methacrylonitrile	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Methyl methacrylate	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Pentachloroethane	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
Propionitrile	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl acetate	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

## NAVSTA MAYPORT

**Lab Sample Number:**

M7684011  
RFADATA  
28SS01201  
06-AUG-94  
QUAL UNITS

W7684012  
RFADATA  
28SS01301  
06-AUG-94  
QUAL UNIT?

W7684013  
RFADATA  
28SS01401  
06-AUG-94  
QUAL UNIT

M7684014  
RFADATA  
28SS01401D  
06-AUG-94  
QUAL UNIT

BKG VOCs (B240-11)

Chloroethane
Bromoethane
Vinyl chloride
Chloroethene
Methylene chloride
Acetone
Carbon disulfide
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane (total)
Chloroform
1,2-Dichloroethane
2-Butanone
1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloroethane
1,2-Dichloropropane
cis-1,3-Dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
trans-1,3-Dichloropropene
Bromoforn
4-Methyl-2-pentanone
2-Hexanone
Tetrachloroethene
1,1,2,2-Tetrachloroethene
Toluene
Chlorobenzene
Ethylbenzene
Styrene
Xylenes (total)
Trichlorofluoroethane
1,3-Dichlorobenzene
Acrolein
Iodoethane
1,4-Dichlorobenzene
Acrylonitrile
Dibromomethane

**ug/kg**

**VALUE**

**DI**

**VAL**

DL

VALUE
-------

DL

DL

[illegible][illegible]

11	ug/kg
11	ug/kg
11	ug/kg
11	ug/kg
9	ug/kg
36	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
11 R	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
11	ug/kg
11	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
5	ug/kg
2 J	ug/kg
5	ug/kg
350	ug/kg
110	ug/kg
11	ug/kg
350	ug/kg
110	ug/kg
5	ug/kg

[illegible]

ug/kg

**BKG VOCs (B240-11)**

Chloroethane	trans-1,3-Dichloropropene
Bromoethane	Bromofors
Vinyl chloride	4-Methyl-2-pentanone
Chloroethane	2-Hexanone
Methylene chloride	Tetrachloroethene
Acetone	1,1,2,2-Tetrachloroethene
Carbon disulfide	Toluene
1,1-Dichloroethane	Chlorobenzene
1,1-Dichloroethane	Ethylbenzene
1,2-Dichloroethane (total)	Styrene
Chloroform	Xylenes (total)
1,2-Dichloroethane	Trichlorofluoroethane
2-Butanone	1,3-Dichlorobenzene
1,1,1-Trichloroethane	Acrolein
Carbon tetrachloride	Iodoethane
Bromodichloroethane	1,4-Dichlorobenzene
1,2-Dichloropropane	Acrylonitrile
cis-1,3-Dichloropropene	Dibromomethane
Trichloroethene	
Dibromochloromethane	
1,1,2-Trichloroethene	
Benzene	

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number: M7684011  
 Site: RFADATA  
 Locator: 28SS01201  
 Collect Date: 06-AUG-94

Lab Sample Number: M7684012  
 Site: RFADATA  
 Locator: 28SS01301  
 Collect Date: 06-AUG-94

Lab Sample Number: M7684013  
 Site: RFADATA  
 Locator: 28SS01401  
 Collect Date: 06-AUG-94

Lab Sample Number: M7684014  
 Site: RFADATA  
 Locator: 28SS01401D  
 Collect Date: 06-AUG-94

VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
5	U	ug/kg	350	350	U	ug/kg	350	350	U	ug/kg	350	350	U	ug/kg	350
11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
210	U	ug/kg	210	210	U	ug/kg	210	210	U	ug/kg	210	210	U	ug/kg	210
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
210	R	ug/kg	210	210	R	ug/kg	210	210	R	ug/kg	210	210	R	ug/kg	210
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110	110	U	ug/kg	110
11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
 J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
 ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (8270) ANALYTICAL RUN.



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7698013  
RFADATA  
28SS00801  
10-AUG-94

M7675019  
RFADATA  
28SS00901  
05-AUG-94

M7684010  
RFADATA  
28SS01001  
06-AUG-94

M7684009  
RFADATA  
28SS01101  
06-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	350	U	ug/kg		350	U	ug/kg		360	U	ug/kg		360	U	ug/kg	
2-Chloroethylvinylether	11	U	ug/kg		11	U	ug/kg		11	U	ug/kg		11	U	ug/kg	
Ethyl methacrylate	5	R	ug/kg		5	U	ug/kg		5	U	ug/kg		6	U	ug/kg	
1,2,3-Trichloropropane	5	R	ug/kg		5	U	ug/kg		5	U	ug/kg		6	U	ug/kg	
trans-1,4-Dichloro-2-butene	5	R	ug/kg		5	U	ug/kg		5	U	ug/kg		6	U	ug/kg	
Isobutyl alcohol	220	R	ug/kg		220	U	ug/kg		220	U	ug/kg		230	U	ug/kg	
1,1,1,2-Tetrachloroethane	11	R	ug/kg		120	U	ug/kg		120	U	ug/kg		120	U	ug/kg	
1,2-Dibromo-3-chloropropane	5	R	ug/kg		5	U	ug/kg		5	U	ug/kg		6	U	ug/kg	
1,2-Dibromoethane	540	R	ug/kg		220	R	ug/kg		220	R	ug/kg		230	R	ug/kg	
1,4-Dioxane	110	R	ug/kg		110	U	ug/kg		110	U	ug/kg		110	U	ug/kg	
3-Chloropropene	-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
Acetonitrile	-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
Chloroprene	22	R	ug/kg		5	U	ug/kg		5	U	ug/kg		6	U	ug/kg	
Methacrylonitrile	11	R	ug/kg		11	U	ug/kg		11	U	ug/kg		11	U	ug/kg	
Methyl methacrylate	350	U	ug/kg		350	U	ug/kg		11	U	ug/kg		11	U	ug/kg	
Pentachloroethane	110	R	ug/kg		110	U	ug/kg		110	U	ug/kg		110	U	ug/kg	
Propionitrile	11	U	ug/kg		11	U	ug/kg		11	U	ug/kg		11	U	ug/kg	
Vinyl acetate																

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED  
THE ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.

# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

M7675018  
RFADATA  
28SS00701  
05-AUG-94

DL

VALUE

DL

VALUE

DL

VALUE

DL

VALUE

DL

DL

VALUE

DL

BKG VOCs (B2A0+11)	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Chloroethane	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Bromoethane	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Vinyl chloride	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Chloroethene	10 U	ug/kg	10	6 U	ug/kg	6	8 U	ug/kg	8	6 U	ug/kg	6
Methylene chloride	16 U	ug/kg	16	28 U	ug/kg	28	37 U	ug/kg	37	45 U	ug/kg	45
Acetone	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Carbon disulfide	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1-Dichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethane (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chloroform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloroethene	10 R	ug/kg	10	11 R	ug/kg	11	11 R	ug/kg	11	11 R	ug/kg	11
2-Butanone	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,1-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Carbon tetrachloride	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromodichloromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,2-Dichloropropane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
cis-1,3-Dichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichloroethene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Dibromochloromethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2-Trichloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Benzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
trans-1,3-Dichloropropene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Bromoform	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
4-Methyl-2-pentanone	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
2-Hexanone	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Tetrachloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
1,1,2,2-Tetrachloroethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Toluene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Chlorobenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Ethylbenzene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Styrene	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Nylenes (total)	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Trichlorofluoroethane	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,3-Dichlorobenzene	100 U	ug/kg	100	110 U	ug/kg	110	110 U	ug/kg	110	110 U	ug/kg	110
Acrolein	10 U	ug/kg	10	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Indanethene	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400	1400 U	ug/kg	1400
1,4-Dichlorobenzene	100 U	ug/kg	100	110 U	ug/kg	110	110 U	ug/kg	110	110 U	ug/kg	110
Acrylonitrile	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5
Dibromomethane	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5	5 U	ug/kg	5



# NAVSTA MAYPORT RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7675015  
RFADATA  
28SS00401  
05-AUG-94

M7675016  
RFADATA  
28SS00501  
05-AUG-94

M7675017  
RFADATA  
28SS00601  
05-AUG-94

M7675018  
RFADATA  
28SS00701  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400	1400 U	U	ug/kg	1400
2-Chloroethylvinylether	10 U	U	ug/kg	10	11 U	U	ug/kg	11	11 U	U	ug/kg	11	11 U	U	ug/kg	11
Ethyl methacrylate	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,2,3-Trichloropropene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
trans-1,4-Dichloro-2-butene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Isobutyl alcohol	210 U	U	ug/kg	210	220 U	U	ug/kg	220	220 U	U	ug/kg	220	210 U	U	ug/kg	210
1,1,1,2-Tetrachloroethane	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,1,2-Dibromo-3-chloropropane	110 U	U	ug/kg	110	110 U	U	ug/kg	110	110 U	U	ug/kg	110	110 U	U	ug/kg	110
1,2-Dibromobenzene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
1,4-Dioxane	210 R	R	ug/kg	210	220 R	R	ug/kg	220	220 R	R	ug/kg	220	210 R	R	ug/kg	210
3-Chloropropene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Acetonitrile	100 U	U	ug/kg	100	110 U	U	ug/kg	110	110 U	U	ug/kg	110	110 U	U	ug/kg	110
Chloroprene	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5	5 U	U	ug/kg	5
Methacrylonitrile	10 U	U	ug/kg	10	11 U	U	ug/kg	11	11 U	U	ug/kg	11	11 U	U	ug/kg	11
Methyl methacrylate	10 U	U	ug/kg	10	11 U	U	ug/kg	11	11 U	U	ug/kg	11	11 U	U	ug/kg	11
Pentachloroethane	100 U	U	ug/kg	100	110 U	U	ug/kg	110	110 U	U	ug/kg	110	110 U	U	ug/kg	110
Propionitrile	10 U	U	ug/kg	10	11 U	U	ug/kg	11	11 U	U	ug/kg	11	11 U	U	ug/kg	11
Vinyl acetate	10 U	U	ug/kg	10	11 U	U	ug/kg	11	11 U	U	ug/kg	11	11 U	U	ug/kg	11

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTIFICATION LIMIT IS ESTIMATED  
T = ADDITIONAL LISTINGS OF RESULTS FOR 1,2-; 1,3-; AND 1,4-DICHLOROBENZENE WERE GENERATED FROM THE SVOC (B270) ANALYTICAL RUN.



MAVSTA MAYPORT  
RFA Surface Soil Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

M7684001  
RFADATA  
28SS00101  
06-AUG-94

M7684002  
RFADATA  
28SS00201  
06-AUG-94

M7684003  
RFADATA  
28SS002010  
06-AUG-94

M7675014  
RFADATA  
28SS00301  
05-AUG-94

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BKG VOCs (8240+11)												
Chloromethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Bromomethane	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Vinyl chloride	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Chloroethene	13 U	ug/kg		13	8 U	ug/kg		8	11 U	ug/kg		11
Methylene chloride	46 U	ug/kg		46	28 U	ug/kg		28	9 U	ug/kg		9
Acetone	6 U	ug/kg		6	5 U	ug/kg		5	35 U	ug/kg		35
Carbon disulfide	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,1-Dichloroethene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethene (total)	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Chloroform	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloroethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
2-Butanone	11 R	ug/kg		11	11 R	ug/kg		11	5 U	ug/kg		5
1,1,1-Trichloroethane	6 U	ug/kg		6	5 U	ug/kg		5	11 R	ug/kg		11
Carbon tetrachloride	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Bromodichloromethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dichloropropane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
cis-1,3-Dichloropropene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Trichloroethene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Dibromochloromethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2-Trichloroethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Benzene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
trans-1,3-Dichloropropene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Bromoforn	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
4-Methyl-2-pentanone	11 U	ug/kg		11	11 U	ug/kg		11	5 U	ug/kg		5
2-Hexanone	11 U	ug/kg		11	11 U	ug/kg		11	11 U	ug/kg		11
Tetrachloroethene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,1,2,2-Tetrachloroethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Toluene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Chlorobenzene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Ethylbenzene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Styrene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Xylenes (total)	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Trichlorofluoromethane	370 U	ug/kg		370	360 U	ug/kg		360	5 U	ug/kg		5
1,3-Dichlorobenzene	110 U	ug/kg		110	110 U	ug/kg		110	360 U	ug/kg		360
Acrolein	11 U	ug/kg		11	11 U	ug/kg		11	110 U	ug/kg		110
1,4-Dichlorobenzene	370 U	ug/kg		370	360 U	ug/kg		360	5 U	ug/kg		5
Acrylonitrile	110 U	ug/kg		110	110 U	ug/kg		110	360 U	ug/kg		360
Dibromomethane	6 U	ug/kg		6	5 U	ug/kg		5	11 U	ug/kg		11
1,2-Dichlorobenzene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
2-Chloroethylvinylether	11 U	ug/kg		11	11 U	ug/kg		11	5 U	ug/kg		5
Ethyl methacrylate	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
trans-1,4-Dichloro-2-butene	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
Isobutyl alcohol	230 U	ug/kg		230	220 U	ug/kg		220	220 U	ug/kg		220
1,1,1,2-Tetrachloroethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,2-Dibromo-3-chloropropane	120 U	ug/kg		120	110 U	ug/kg		110	110 U	ug/kg		110
1,2-Dibromomethane	6 U	ug/kg		6	5 U	ug/kg		5	5 U	ug/kg		5
1,4-Dioxane	230 R	ug/kg		230	220 R	ug/kg		220	220 R	ug/kg		220



HAVSTA MAYPORT  
RFA Sediment Data

Lab Sample Number:  
Site  
Locator  
Collect Date:

R8272001  
RFADATA  
19SD001  
30-JUN-94

R8272002  
RFADATA  
19SD001D  
30-JUN-94

R8272003  
RFADATA  
19SD002  
30-JUN-94

R8272004  
RFADATA  
19SD003  
30-JUN-94

BKG SOILS METALS

ng/kg

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Antimony	1.3 U		ng/kg		1.2 U		ng/kg		1.2		ng/kg		1.2 U		ng/kg	
Arsenic	1.4 J		ng/kg		1.1 J		ng/kg				ng/kg		1.5 J		ng/kg	
Barium	6 J		ng/kg		5.8 J		ng/kg				ng/kg		2.6 J		ng/kg	
Beryllium	11 J		ng/kg		.1 J		ng/kg				ng/kg		.07 U		ng/kg	
Cadmium	.26 U		ng/kg		.24 U		ng/kg		.24		ng/kg		.24 U		ng/kg	
Chromium	1.3 J		ng/kg		1.2 J		ng/kg				ng/kg		1.8 J		ng/kg	
Cobalt	1.2 U		ng/kg		.84 U		ng/kg		.84		ng/kg		1 U		ng/kg	
Copper	.6 J		ng/kg		.95 J		ng/kg				ng/kg		.6 J		ng/kg	
Cyanide	.18 U		ng/kg		.16 U		ng/kg		.16		ng/kg		.18 J		ng/kg	
Lead	1		ng/kg		.76		ng/kg				ng/kg		.78		ng/kg	
Mercury	.04 U		ng/kg		.03 U		ng/kg		.03		ng/kg		.03 U		ng/kg	
Nickel	1.5 U		ng/kg		1.4 U		ng/kg		1.4		ng/kg		1.4 U		ng/kg	
Selenium	.78 UJ		ng/kg		.71 UJ		ng/kg				ng/kg		.73 UJ		ng/kg	
Silver	.55 U		ng/kg		.5 U		ng/kg		.5		ng/kg		.51 U		ng/kg	
Thallium	.16 UJ		ng/kg		.14 UJ		ng/kg				ng/kg		.15 U		ng/kg	
Tin	3.01 U		ng/kg		3.6 U		ng/kg		3.6		ng/kg		4.5 U		ng/kg	
Vanadium	2.8 J		ng/kg		2.3 J		ng/kg				ng/kg		1.6 J		ng/kg	
Zinc	9.2 J		ng/kg		5.9 U		ng/kg		5.9		ng/kg		6.8 J		ng/kg	

U = NOT DETECTED R = RESULT IS REJECTED  
J = ESTIMATED VALUE UJ = REPORTED QUANTITATION LIMIT IS ESTIMATED

**APPENDIX C**  
**RISK EVALUATION CALCULATIONS**

**Table C-1**  
**Estimated Human Health Risk**  
**Surface Soil Contamination Associated with SWMU 26**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<u><b>Volatile Organic Compounds (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Semivolatile Organic Compounds (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Pesticides/PCBs (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Inorganics (mg/kg)</b></u>  Arsenic	1.6	0.37	4E-6		
Beryllium	0.33	0.15	2E-6		
<b>Total Cancer Risk</b>			6E-6		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of  $10^{-6}$  or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of  $10^{-6}$ . The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes:      ug/kg = microgram per kilogram  
                 mg/kg = milligram per kilogram  
                 NA = Not available

**Table C-2**  
**Estimated Human Health Risk**  
**Subsurface Soil Contamination Associated with SWMU 26**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<u><b>Volatile Organic Compounds (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Semivolatile Organic Compounds (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Pesticides/PCBs (ug/kg)</b></u>  No Human Health CPCs Detected					
<u><b>Inorganics (mg/kg)</b></u>  Arsenic	2	0.37	5E-6		
Beryllium	0.23	0.15	2E-6		
<b>Total Cancer Risk</b>			7E-6		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of  $10^{-6}$  or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of  $10^{-6}$ . The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes:      ug/kg = microgram per kilogram.  
                 mg/kg = milligram per kilogram.  
                 NA = Not available.

**Table C-3**  
**Estimated Human Health Risk**  
**Surface Soil Contamination Associated with SWMU 56**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<b>Volatile Organic Compounds (µg/kg)</b> No Human Health CPCs Detected					
<b>Semivolatile Organic Compounds (µg/kg)</b> No Human Health CPCs Detected					
<b>Pesticides/PCBs (µg/kg)</b> No Human Health CPCs Detected					
<b>Inorganics (mg/kg)</b>					
Arsenic	1.2	0.37	3E-6		
Beryllium	0.19	0.15	1E-6		
Cadmium	4.3			39	0.1
Chromium	52.3			390	0.1
<b>Total Cancer Risk</b>			4E-6		
<b>Total Noncancer Risk</b>					0.2

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of  $10^{-6}$  or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of  $10^{-6}$ . The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes:      ug/kg = microgram per kilogram.  
                 mg/kg = milligram per kilogram.  
                 NA = Not available.

**Table C-4**  
**Estimated Human Health Risk**  
**Surface Soil Contamination Associated with SWMU 19**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<u><b>Volatile Organic Compounds (ug/kg)</b></u> No Human Health CPCs Detected					
<u><b>Semivolatile Organic Compounds (ug/kg)</b></u> No Human Health CPCs Detected					
<u><b>Pesticides/PCBs (ug/kg)</b></u> No Human Health CPCs Detected					
<u><b>Inorganics (mg/kg)</b></u> Arsenic	1.2	0.37	3E-6		
Beryllium	0.26	0.15	2E-6		
<b>Total Cancer Risk</b>			5E-6		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of  $10^{-6}$  or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of  $10^{-6}$ . The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes: ug/kg = microgram per kilogram  
mg/kg = milligram per kilogram  
NA = Not available



**Table C-5**  
**Estimated Human Health Risk**  
**Surface Soil Contamination Associated with SWMU 28**

Group I and II RFA/SV Report  
U.S. Naval Station Mayport  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<u><b>Volatile Organic Compounds (ug/kg)</b></u>					
4-Chloro-3-methylphenol	55	NA		NA	
<u><b>Semivolatile Organic Compounds (ug/kg)</b></u>					
No Human Health CPCs Detected					
<u><b>Pesticides/PCBs (ug/kg)</b></u>					
No Human Health CPCs Detected					
<u><b>Inorganics (mg/kg)</b></u>					
Arsenic	3.2	0.37	9E-9		
Beryllium	0.2	0.15	1E-6		
<b>Total Cancer Risk</b>			1E-6		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of 10<sup>-5</sup> or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of 10<sup>-6</sup>. The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes: ug/kg = microgram per kilogram  
mg/kg = milligram per kilogram  
NA = Not available

**Table C-6**  
**Estimated Human Health Risk**  
**Subsurface Soil Contamination Associated with SWMU 28**

Group I and II RFA/SV Report  
U.S. Naval Station Mayport  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<b><u>Volatile Organic Compounds (ug/kg)</u></b>					
No Human Health CPCs Detected					
<b><u>Semivolatile Organic Compounds (ug/kg)</u></b>					
Benzo (a) anthracene	210	880	2E-7		
Benzo (b) fluoranthene	310	880	4E-7		
Chrysene	270	88,000	3E-9		
Dibenzo (a, h) anthracene	180	88	2E-6		
Indeno (1,2,3-cd)pyrene	290	880	3E-7		
<b><u>Pesticides/PCBs (ug/kg)</u></b>					
No Human Health CPCs Detected					
<b><u>Inorganics (mg/kg)</u></b>					
Arsenic	8.3	0.37	2E-5		
Beryllium	1.3	0.15	9E-6		
<b>Total Cancer Risk</b>			3E-5		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of  $10^{-6}$  or an adjusted Hazard Quotient of 0.1 based on February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 935/14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of  $10^{-6}$ . The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes: ug/kg = microgram per kilogram.  
mg/kg = milligram per kilogram.  
NA = Not available.

**Table C-7**  
**Estimated Human Health Risk**  
**Unfiltered Groundwater Associated with SWMU 28**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<b>Volatile Organic Compounds (µg/l)</b> No Human Health CPCs Detected					
<b>Semivolatile Organic Compounds (µg/l)</b> No Human Health CPCs Detected					
<b>Pesticides/PCBs (µg/l)</b> No Human Health CPCs Detected					
<b>Inorganics (µg/l)</b> Thallium <sup>6</sup>	1.5			2.9	0.5
<b>Total Cancer Risk</b>					
<b>Total Noncancer Risk</b>					0.5

<sup>1</sup> The analytes listed exceeded either a cancer risk of 10<sup>-6</sup> or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC) or a screening value as listed in the Florida Department of Environmental Protection "Groundwater Guidance Concentrations," dated April 5, 1995.

<sup>2</sup> The groundwater concentration listed represents a cancer risk of 10<sup>-6</sup> based on a 30 year lifetime aggregate exposure. The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The groundwater concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

<sup>6</sup> The value is based on thallium as thallium sulfate.

Notes:      µg/l = micrograms per liter.  
NA = Not available.

**Table C-8**  
**Estimated Human Health Risk**  
**Surface Soil Associated with SWMU 48**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sup>1</sup>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<b>Volatile Organic Compounds (µg/kg)</b>  No Human Health CPCs Detected					
<b>Semivolatile Organic Compounds (µg/kg)</b>  No Human Health CPCs Detected					
<b>Pesticides/PCBs (µg/kg)</b>  No Human Health CPCs Detected					
<b>Inorganics (mg/kg)</b>  Arsenic	0.7	0.37	2E-6		
<b>Total Cancer Risk</b>			2E-6		
<b>Total Noncancer Risk</b>					

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of 10<sup>-6</sup> or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of 10<sup>-6</sup>. The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes:      ug/kg = microgram per kilogram.  
              mg/kg = milligram per kilogram.  
              NA = Not available.

**Table C-9**  
**Estimated Human Health Risk**  
**Subsurface Soil Contamination Associated with SWMU 48**

Group I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

Analyte <sub>1</sub>	Maximum Detected Concentration	Residential Cancer RBC <sup>2</sup>	Residential Cancer Risk <sup>3</sup>	Residential Noncancer RBC <sup>4</sup>	Residential Noncancer Risk <sup>5</sup>
<b>Volatile Organic Compounds (µg/kg)</b> No Human Health CPCs Detected					
<b>Semivolatile Organic Compounds (µg/kg)</b> No Human Health CPCs Detected					
<b>Pesticides/PCBs (µg/kg)</b> No Human Health CPCs Detected					
<b>Inorganics (mg/kg)</b> Arsenic	2.5	0.37	7E-6		
<b>Total Cancer Risk</b>			7E-6		
<b>Total Noncancer Risk</b>					

\*p216X

<sup>1</sup> The analytes listed exceeded one of the following criteria: a cancer risk of 10<sup>-6</sup> or an adjusted Hazard Quotient of 0.1 based on the February 9, 1995 USEPA Region III Risk Based Concentration (RBC); proposed soil screening levels (presented in document USEPA 9355.4-14FS, dated December 1994); value established by Florida Department of Environmental Protection in their memorandum for Cleanup Goals for Military Sites, dated April 5, 1995.

<sup>2</sup> The residential soil concentration listed represents a cancer risk of 10<sup>-6</sup>. The value is from the USEPA Region III RBC Tables dated February 9, 1995. For most analytes, the RBC table assumes a single exposure pathway. For most analytes, the RBC value is based on an ingestion route of exposure.

<sup>3</sup> The cancer risk is an estimated value based on the assumptions used in the RBC tables.

<sup>4</sup> The residential soil concentration for noncancer listed is based on a Hazard Quotient of 1. The value is from the USEPA Region III Risk Based Concentration Tables dated February 9, 1995.

<sup>5</sup> The total noncancer risk is an estimated value based on the assumptions used in the RBC tables. The noncancer risks are assumed to be cumulative, even though different chemicals may effect different organs.

Notes:      ug/kg = microgram per kilogram.  
                 mg/kg = milligram per kilogram.  
                 NA = Not available.

**APPENDIX D**  
**AFFF MATERIAL SAFETY**  
**DATA SHEETS**

MATERIAL SAFETY DATA SHEETANSULITE 6% AFFF (AFC-3)Quick Identifier (In Plant Common Name)

MANUFACTURER'S NAME	Ansul Fire Protection Wormald U.S., Inc.	Emergency Telephone No. (715) 735-7411
Prepared By	Safety and Health Department	Date Prepared November 15, 1985

## SECTION 1 - IDENTITY

Common Name: (Used on label (Trade Name and Synonyms):	Ansulite 6% AFFF (AFC-3)	CAS No. N/A
Chemical Name:	N/A This is a mixture.	Chemical Family: Mixture
Formula	N/A	

## SECTION 2 - INGREDIENTS

## Part A - HAZARDOUS INGREDIENTS

Principal Hazardous Component(s) (chemical and common name(s))	%	CAS No.	ACGIH TLV	Acute Toxicity Data
Diethylene Glycol Monobutyl Ether (Butyl Carbitol)	17	112-34-5	None	Dermal LD <sub>50</sub> (rat) 4120 mg/kg Oral LD <sub>50</sub> (rat) 6560 mg/kg

## Part B - OTHER INGREDIENTS

Other Component(s) (chemical and common name(s))	%	CAS No.	Acute Toxicity Data
Proprietary mixture of hydrocarbon surfactants, fluorosurfactants and inorganic salts not otherwise specified, and water.			

## SECTION 3 - PHYSICAL AND CHEMICAL CHARACTERISTICS (Fire and Explosion Data)

Boiling Point:	Specific Gravity (H <sub>2</sub> O=1):	Vapor Pressure (mm Hg):
97 °C	1.02	N. D.

Percent Volatile by Volume (%):	Vapor Density (Air = 1):	Solubility in water:
Approx. 94	1	100%

Evaporation Rate (Butyl Acetate = 1):	Reactivity in Water:
0.46	Unreactive

Appearance and  
Odor: Clear straw colored liquid, mild sweet odor.

Flash Point: None to boiling    Flammable Limits in Air % by Volume: N/A    Extinguisher Media: N/A    Auto-Ignition Temperature: N/A

Special Fire Fighting Procedures: N/A THIS IS AN EXTINGUISHING AGENT.

Unusual Fire and Explosion Hazards: None.

=====

#### SECTION 4 - PHYSICAL HAZARDS

=====

Stability    Unstable    ☐ Conditions  
                 Stable        ☒ to Avoid: N/A

Incompatibility  
(Materials to Avoid): Reactive metals, electrically energized equipment, any materials reactive with water.

Hazardous Decomposition Products: None known.

Hazardous Polymerization        May Occur ☐ Conditions  
                 Will Not Occur ☒ to Avoid: N/A

=====

#### SECTION 5 - HEALTH HAZARDS

=====

THRESHOLD LIMIT VALUE: None established by ACGIH or OSHA.

Routes of Entry

Eye Contact:        May cause mild transient irritation.

Skin Contact:       May cause mild transient irritation.

Inhalation:        Inhalation is not anticipated to be a problem.

Ingestion:        Irritating to mucous membranes. Large oral doses could produce narcosis.

Signs and Symptoms

Acute Overexposure: Irritation of the eyes, skin and mucous membranes.

Chronic Overexposure:        Delayed kidney injury, possible liver damage.

Medical Conditions Generally Aggravated by Exposure: Diseases of the kidney and liver.



ANSULITE 6% AFFF (AFC-3)  
SECTION 5 HEALTH HAZARDS (cont.)

<u>Chemical Listed</u>	National				
<u>as Carcinogen</u>	Toxicology	Yes [ ]	I.A.R.C.	Yes [ ]	OSHA
<u>or Potential</u>	Program	No [X]	Monographs	No [X]	Yes [ ]
					No [X]

=====

SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES

=====

Eye Contact: Flush with large amounts of water; if irritation persists, seek Medical attention.

Skin Contact: Wash with soap and water; if irritation persists, seek Medical attention.

Inhalation: Remove victim to fresh air. Seek Medical attention if discomfort continues.

Ingestion: If patient is conscious, give large amounts of water and induce vomiting. Seek Medical help.

=====

SECTION 7 - SPECIAL PROTECTION INFORMATION

=====

Respiratory Protection  
(Specify Type): Not normally necessary.

<u>Ventilation</u>	<u>Local</u>	<u>Mechanical</u>
	<u>Exhaust:</u>	<u>(General):</u> Recommended.

Protective  
Gloves: N/A

Eye Protection: Chemical goggles recommended.

Other Protective Clothing  
or Equipment: Eye wash and safety showers are good safety practice.

=====

SECTION 8 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

=====

Precautions To Be Taken In Handling  
and Storage: Store in original container. Note incompatibility information in Section 4.

Other Precautions: Do not mix agents. Avoid skin and eye contact. Avoid ingestion.

Steps to be Taken in Case Material is  
Released or Spilled: Rinse floor thoroughly with water as material is slippery. Prevent material from entering sewers or waterways to avoid nuisance foaming.

Waste Disposal  
Methods: Dispose of in compliance with all local, state, and federal regulations.

# Product Environmental Data



Environmental Laboratory  
3M Environmental Engineering and Pollution Control  
900 Bush Avenue  
PO Box 33331  
St. Paul, MN 55133-3331  
612/778 4736

3M LIGHT WATER BRAND AQUEOUS  
FILM FORMING FOAM (AFFF)  
DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION

6147

## CONCLUSIONS:

Light Water Brand AFFF and ATC wastes are treatable in a wastewater treatment system if disposed of according to 3M recommendations. These products have low toxicity to the microorganisms in wastewater treatment systems even at concentrations much higher than those recommended by 3M. Foaming problems may develop, however, particularly when recommended discharge concentrations are exceeded.

Fluorochemical thermal decomposition products do not present a health hazard during fire fighting nor do they affect the treatability of aqueous fire fighting wastes. The major reasons for this are that during usage, the concentration of fluorochemicals in Light Water AFFF solutions is low and little fluorochemical is burned.

## DISPOSAL RECOMMENDATIONS FOR AFFF (AQUEOUS FILM FORMING FOAM) AND ATC (ALCOHOL TYPE CONCENTRATE) WASTES:

3M recommends handling wastes resulting from the use of Light Water AFFF products by pretreatment in an oil/water separator. The oil fraction should be incinerated in a facility designed to accept such wastes. The aqueous fraction should be metered to a wastewater treatment system at a rate sufficiently low so that the concentrations reaching the aeration basin of the wastewater treatment system will not cause excessive foaming. Appropriate discharge rates will be determined by individual circumstances and should follow applicable regulations.

When pretreatment by oil/water separation is not possible, 3M recommends metering wastes to a wastewater treatment system. Since regulations vary, consult applicable regulations or authorities before disposal. In addition, treatment plant operators should be contacted before discharge to determine the capacity of the treatment system and sewage flow rates into the system so that discharge rates can be estimated.

For most AFFF or ATC products used at 6%, 3M recommends adjusting the discharge rate so that the product concentration in the aeration basin of the wastewater treatment system will be less than 100 mg per liter of sewage. For most products used at 3%, 3M recommends a maximum

Date: 9/11/92

Page 1 of 8

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

App E

# Product Environmental Data

# 3M

**Environmental Laboratory****3M Environmental Engineering and Pollution Control**

900 Bush Avenue

PO Box 33331

St. Paul, MN 55133-3331

612/778 4736

**3M LIGHT WATER BRAND AQUEOUS****FILM FORMING FOAM (AFFF)****DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION  
(CON'T)**

product concentration of 50 mg/L in the aeration basin. Products used at 3% require greater dilution than products used at 6% because the 3% concentrates have higher surfactant concentrations than the 6% concentrates. Product Environmental Data Sheets for products with higher surfactant concentrations may recommend somewhat greater dilution.

In some situations, metered discharge of wastes to a wastewater treatment system is impractical because the small size of the treatment system limits the discharge rate to such an extent that too much time would be required for disposal. 3M recommends two disposal alternatives in these situations: (1) transporting collected waste materials by tank trucks for metered discharge into a larger waste treatment facility, or (2) discharging the waste at a somewhat higher rate with appropriate concentrations of antifoaming agent added to the waste stream to control foaming.

Experiments conducted in the 3M Environmental Laboratory have determined that several antifoaming products are effective at controlling excessive foaming in activated sludge/AFFF mixtures. The effectiveness of antifoaming agents, however, will be determined by the specific conditions in the aeration basin in individual wastewater treatment systems.

While this is not an endorsement, the following nine products were found to be the most effective of thirty-one antifoam products tested using activated sludge/AFFF mixtures in laboratory tests:

GE Silicones  
1-800-332-3390

Antifoam Emulsion AF72  
Antifoam Emulsion AF93  
Antifoam Emulsion AF9020

Henkel  
1-800-922-0605

Defoamer WB-209  
Foammaster™ DS

Union Carbide  
1-800-523-5862

SAG 2001 Organosilicone Emulsion

Date:

9/11/92

Page 2 of 8

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

# Product Environmental Data



Environmental Laboratory  
3M Environmental Engineering and Pollution Control

900 Bush Avenue  
PO Box 33331  
St. Paul, MN 55133-3331  
612/778 4736

3M LIGHT WATER BRAND AQUEOUS  
FILM FORMING FOAM (AFFF)  
DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION

Wacker Silicones  
1-800-248-0063

Antifoam Agent SE-36  
Antifoam Agent SWS-214  
Antifoam Emulsion SRE

Of these nine products, the most cost-effective were Henkel WB-209, GE Silicones AF9020, Henkel Foammaster™ DS, and Wacker Silicones SRE. The cost analysis used in that study was based on antifoam prices obtained in July, 1992. Price and transport charges may vary which could cause other products to be more cost-effective in some locations.

The antifoam concentration required to limit foaming in laboratory tests on FC-203CF solutions of various concentrations are tabulated below. The products are listed in the table in order of most to least cost-effective. The antifoam concentrations given in the table are intended to serve as estimates since the actual antifoam concentration required to suppress foaming will be determined by the specific conditions in the aeration basin. Where no data are given in the table, the antifoam agent is not recommended for suppressing foam at or above that AFFF concentration.

The antifoam concentrations in the table were obtained in laboratory tests using 3M FC-203CF, but they are the approximate antifoam concentrations required for other 3M AFFF and ATC products used at 3%. For 3M AFFF products used at 6% in water, the antifoam concentrations should be approximately correct for twice the AFFF concentrations given at the top of each column. This is, the antifoam concentrations would be approximately correct for 6% AFFF concentrates at 200, 600, 1000, 1200, 1400, 1600, 1800, and 2200 mg/L in the aeration basin.

The AFFF and antifoam concentrations given in the preceding paragraph and in the table below are for foam control only. Other factors must be considered in selecting rates of discharge to a sewer. 3M recommends a case-by-case determination of the maximum concentrations of AFFF and antifoam to be discharged to a treatment system and subsequently to an aquatic environment. The maximum concentration will depend on a variety of factors, including the conditions in the individual wastewater treatment system and in the receiving watercourse, as well as the dilution factor of the treated wastewater in the receiving watercourse. These factors should be evaluated in

Date: 9/11/92

Page 3 of 8

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

# Product Environmental Data

# 3M

Environmental Laboratory  
3M Environmental Engineering and Pollution Control

900 Bush Avenue  
PO Box 33331  
St. Paul, MN 55133-3331  
612/778 4736

3M LIGHT WATER BRAND AQUEOUS  
FILM FORMING FOAM (AFFF)  
DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION  
(CON'T)

each situation to ensure that neither the AFFF nor the antifoam will cause harm. Product Environmental Data Sheets on the particular 3M AFFF product(s) will help in this evaluation.

	FC-203CF Concentration (mg/L) *							
	100	300	500	600	700	800	900	1100
Henkel WB-209	20	100	190	---	---	---	---	---
GE Silicones AF9020	20	100	190	270	430	500	740	1950
Henkel Foammaster™ DS	20	110	200	300	430	500	690	1600
Wacker Silicones SRE	20	100	190	270	400	490	---	---
Wacker Silicones SWS-214	40	170	430	---	---	---	---	---
GE Silicones AF93	20	100	190	270	430	480	530	1600
GE Silicones AF72	20	100	190	270	430	480	600	1800
Wacker Silicones SE-36	30	140	310	470	580	---	---	---
Union Carbide SAG 2001	50	220	600	---	---	---	---	---

\* See text for precautions and for extrapolating these data to other 3M AFFF products.

9/11/92

Page 4 of 8

Date:

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

# Product Environmental Data



Environmental Laboratory  
3M Environmental Engineering and Pollution Control

900 Bush Avenue  
PO Box 33331  
St. Paul, MN 55133-3331  
612/778 4736

## 3M LIGHT WATER BRAND AQUEOUS FILM FORMING FOAM (AFFF) DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION (CON'T)

In situations where antifoam agents are used to control excessive foaming by 3M products used at 6% in water, 3M recommends adjusting the discharge rate so that the product concentration in the aeration basin of the wastewater treatment system will be less than 1,000 mg/L of sewage. When antifoam agents are used to control foaming by 3M products used at 3%, 3M recommends a maximum AFFF concentration of 500 mg/L in the aeration basin. These maximum concentrations are based on laboratory studies that have shown that 3M AFFF products at or below these concentrations are unlikely to cause toxicity in wastewater treatment systems. The AFFF and antifoam concentrations in the table that are greater than these maximum recommended concentrations are provided to assist customers in dealing with emergency foaming situations or where elevated concentrations are appropriate because of individual circumstances. In all cases, applicable local regulations and the antifoam Material Safety Data Sheet (MSDS) should be consulted before use.

At 3M's own wastewater treatment facilities, foaming caused by Light Water AFFF discharges has been controlled by spraying a dilution of Wacker Silicones Antifoam Emulsion SWS-214 over the aeration basin. This dilution is prepared by mixing one part of SWS-214 in twenty parts of water. The antifoam dilution is sprayed over the aeration basin surface until the desired level of foam control is obtained. This procedure could be used as an alternative to adding the antifoam directly to the AFFF containing waste stream.

### REASONS FOR 3M DISPOSAL RECOMMENDATIONS:

The primary reason for recommending discharge to a sewer is that 3M AFFF wastes are treatable in a biological wastewater treatment system. Light Water AFFF usage wastes are approximately 99% water and therefore have very low concentrations of organic compounds. The dilute nature of the waste makes alternative disposal methods, such as incineration, carbon adsorption, ultrafiltration, or reverse osmosis, both difficult and costly. Moreover, the major components of 3M AFFF usage wastes are a biodegradable solvent, Butyl Carbitol™ (<1%), and a mixture of biodegradable and partially biodegradable surfactants (<0.3%).

Date: 9/11/92

Page 5 of 8

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.



# Product Environmental Data

Environmental Laboratory  
3M Environmental Engineering and Pollution Control

900 Bush Avenue  
PO Box 33331  
St. Paul, MN 55133-3331  
612/778 4736

3M LIGHT WATER BRAND AQUEOUS  
FILM FORMING FOAM (AFFF)  
DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION  
(CON'T)

Chemicals are generally considered biodegradable when the ratio of their 20-day Biochemical Oxygen Demand ( $BOD_{20}$ ) to their Chemical Oxygen Demand (COD) is greater than 0.6. The  $BOD_{20}/COD$  for Butyl Carbitol was found to be 0.85. There are several biodegradable surfactants in these products and their  $BOD_{20}/COD$  ratios were found to lie between 0.74 and 0.94. There are also surfactants in these products with  $BOD_{20}/COD$  ratios less than 0.6. This includes the fluorochemical surfactants and some of the hydrocarbon surfactants. The hydrocarbon surfactants that do not meet this  $BOD_{20}/COD$  criteria will likely fully biodegrade given more time. Some fluorochemical surfactants may have both hydrocarbon and fluorochemical portions. The fluorochemical portions of these surfactants are not known to biodegrade, but the hydrocarbon portions are likely to be biodegraded to some degree in most wastewater treatment systems and, like the fully hydrocarbon surfactants, eventually completely biodegrade. Possible fates of the nondegradable materials in wastewater treatment systems include sorption onto the microbial solids or passage out of the system with the treated wastewater. In any event, their concentration will be very low. Nonbiodegradable fluorochemical materials are used in AFFF products because they are required to make the products work. All effective AFFF products on the market today (and all fluoroprotein products as well) contain fluorochemical surfactants. Finally, laboratory tests on both the individual product components and the product concentrates have determined the low toxicity of these materials to activated sludge bacteria, so discharge to ordinary wastewater treatment systems is reasonable.

Laboratory studies have shown that foaming, not toxicity, is usually the cause of problems from improper disposal of AFFF wastes to wastewater treatment systems. In laboratory studies, wastewater containing FC-600 Light Water AFFF at 1,000 mg/L was treated successfully without toxicity. In that lab study, the foam was physically broken down and returned to the treatment system along with activated sludge solids that came out because of foaming. With these modifications to the normal treatment process, the quality of the treated effluent from the laboratory scale system was not adversely affected. Treatment at this concentration is not recommended, however, because of excessive foaming.

9/11/92

Page 6 of 8

Date:

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

# Product Environmental Data



Environmental Laboratory  
3M Environmental Engineering and Pollution Control

900 Bush Avenue

PO Box 33331

St Paul, MN 55133-3331

612/778 4736

3M LIGHT WATER BRAND AQUEOUS

FILM FORMING FOAM (AFFF)

DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION  
(CON'T)

Light Water AFFF wastes resulting from testing the operability of a fire fighting system, such as that installed in a hanger facility, normally don't contain much fuel or oil. On the other hand, wastes from fire fighting training facilities where hydrocarbon fires are extinguished may contain suspended oil. If oil is present, it should be separated from the waste before discharging the waste to a sewer as described above. If oil is emulsified in the waste, it may be difficult to separate but many oils can biodegrade. Furthermore, emulsified oils are more likely to biodegrade in a wastewater treatment system than are nonemulsified oils.

3M recommends metered discharge of Light Water AFFF wastes to flowing sewers because discharge to an intermittently flowing sewer could cause waste to collect and to be flushed to aeration basins at higher than recommended concentrations. Uncontrolled sewer discharge rates also could result in foam backing out of sewer drains.

## THERMAL DECOMPOSITION FROM LIGHT WATER AFFF USAGE:

Thermal decomposition products resulting from Light Water AFFF usage present an insignificant hazard. Considerable confusion was caused by a precautionary statement formerly used on Light Water AFFF Material Safety Data Sheets (MSDSs). That statement was frequently misinterpreted as meaning that thermal decomposition products from usage concentration levels could cause a health hazard. The precaution once simply stated: "Thermal decomposition may produce toxic materials, including HF." This statement has now been modified to include: "Decomposition of usage concentrations does not present a hazard."

The former MSDS precaution for Light Water AFFF products is still used on the MSDSs for other 3M products containing fluorochemicals. The statement is used because it is well known that most fluorochemical materials, including such commonly used items as polytetrafluoroethylene (PTFE) coated frying pans, utensils, etc., can liberate toxic fumes including HF or perfluorobutylenes under combustion or pyrolysis conditions. However, this will occur only if very high temperature conditions exist (>300C).

9/11/92

Page 7 of 8

Date:

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.



# Product Environmental Data



## Environmental Laboratory

3M Environmental Engineering and Pollution Control

900 Bush Avenue

PO Box 33331

St. Paul, MN 55133-3331

612/778 4736

3M LIGHT WATER BRAND AQUEOUS

FILM FORMING FOAM (AFFF)

DISPOSAL RECOMMENDATIONS AND HAZARD EVALUATION

(CON'T)

Furthermore, formation of hazardous concentrations of thermal by-products is more likely in fluorocarbon containing products with high fluorine content (65 or 70%), but the fluorochemical content of 3M AFFF products is very low. For example, FC-206CF Light Water AFFF concentrate contains only about 1.1% fluorine, and when diluted to the usage concentration, it contains only about 0.06% fluorine. Thus, from a combustion or pyrolysis product hazard perspective, PTFE, which is widely known as a nontoxic, inert material, would be far more hazardous.

There are other reasons that make the production of hazardous concentrations of thermal degradation products during fire fighting with Light Water AFFF very unlikely. Most importantly, little of the fluorochemical would burn or thermally decompose. The reasons for this are that the product rapidly covers and extinguishes the fire, and the high percentage of water absorbs considerable heat, thereby cooling and limiting the decomposition of the dissolved fluorochemical.

The 3M Industrial Hygiene Department conducted a test to confirm the lack of hazard from fluorochemical combustion when Light Water AFFF is used in fire fighting. The test was designed to simulate a "worst case" situation by maximizing the chance of fluorochemical combustion. The test burned a 2-3 inch layer of FC-203CE Light Water AFFF foam in a 10 square foot pan of gasoline inside a 20 by 20 foot wide and 15 foot high open topped concrete building. To cause the fluorochemical in the Light Water AFFF product to burn, the test operator had to stir vigorously the foam and gasoline, an atypical procedure. Stirring broke the foam barrier and allowed combustion that would normally have been extinguished by the foam. Even under this worst case situation, two HF measurements taken above and near this fire were only 0.23 and 0.16 parts per million (ppm). While not directly applicable to this situation, these measurements were below the Threshold Limit Value for HF of 3 ppm, a concentration judged not to present a health hazard for nearly all persons.

Thus, fluorochemical decomposition products from Light Water AFFF present an insignificant risk when compared to the many other hazardous decomposition products resulting from a fire. Light Water AFFF products certainly play a much more significant role in reducing the toxicity hazards of fire situations by rapidly cooling and extinguishing a fire and by covering and preventing the volatilization of other potentially toxic materials.

Date: 9/11/92

Page 8 of 8

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.

## II. "Light Water" Brand Concentrates

### A. Physical Properties

The selection of the proper "Light Water" Agent is important for optimum performance of any fire protection system. Typical physical properties of "Light Water" Concentrates are listed in Table II-1. 6% Concentrate is designed to be mixed at 6 parts concentrate with 94 parts water. 3% concentrates are designed to be mixed at 3 parts concentrate with 97 parts water. The 3% freeze-protected concentrate is protected to -15°F (-26°C) with a minimum use temperature of 0°F (-18°C).

The Alcohol Type Concentrate (ATC) is designed to be mixed at 3 parts concentrate with 97 parts water when used on non-polar hydrocarbon flammables. For polar solvents or alcohols, ATC is designed to be mixed at 6 parts concentrate with 94 parts water.

Table II-1.  
Typical Concentrate Properties

"Light Water" Concentrate	Nominal Use Concentration	Specific Gravity			Viscosity, CG			Minimum Use Temp. °F (°C)	Freeze Point °F (°C)	pH 77°F (25°C)
		77°F (25°C)	40°F (4.4°C)	-10°F (-23.3°C)	77°F (25°C)	40°F (4.4°C)	-10°F (-23.3°C)			
AFFF	6%	1.01	1.02	—	2	5	—	35 (1.7)	25 (-4)	8
AFFF	1%	1.10	—	—	12.2	31.0	—	35 (1.7)	20 (-6.7)	8
AFFF (Freeze Protected)	3%	1.06	1.06	1.03	8	16	90	0 (-18)	-15 (-25)	8
AFFF	3%	1.04	1.05	—	4	9	—	35 (1.7)	25 (-4)	8
AFFF/ATC	3%/6%	1.02	—	—	2000	3220	—	35 (1.7)	26 (-2)	8

### B. Storage and Stability

#### 1. "Light Water" AFFF

"Light Water" Brand Concentrates may be stored in their shipping containers without change in their original physical or chemical characteristics. Freezing and thawing have no adverse effect on product performance, though slight stratification may result, in which case moderate agitation before use is advised. The non-freeze protected concentrates proportion satisfactorily in ordinary equipment between 35° and 120°F (2° and 49°C). Freeze protected concentrate, with a freeze point of -15°F, proportions satisfactorily in ordinary equipment between 0° and 120°F (-18° and 49°C).

Long-term thermal aging of the *concentrates* at 150°F (65°C) has shown no adverse effect in performance. Therefore, a lifetime of at least 20 years could be expected when stored in suitable containers. Storage of *premises* is not generally recommended for periods beyond 5 years.

Storage of concentrates or premises in unlined mild steel tanks is not recommended as a general practice. No serious *concentrate* poisoning from metals of construction has occurred. However, as with any other aqueous material, there is the possibility of rust and scale formation in mild steel tanks. Storage of *premises* in contact with mild steel (and to some extent, aluminum) will result in eventual agent poisoning. Recommendations for materials of construction are given in Section V, "Materials of Construction." Contact your local 3M sales representative for advice on unusual storage conditions.

Post-It™ brand fax transmittal memo 7671 of pages = 5

To <i>Scott Newma</i>	From <i>Don B. Bell</i>
Co.	Co.
Dept.	Phone #
Fax #	Fax #

## 2. "Light Water" ATC

In storing and handling "Light Water" ATC, certain recommendations are necessary. When stored in accordance with these recommendations, "Light Water" ATC has good stability. Unlike the regular "Light Water" Brand Concentrates, there are some limitations to its shelf-life. Annual inspection of systems as prescribed in NFPA 11 is recommended. Additionally, storage and handling recommendations include the following:

- Storage in mild carbon steel tanks is not recommended.
- Long term handling with mild carbon steel pumps and piping is not recommended.
- Evaporation of the concentrate should be prevented through the use of pressure/vacuum vents on all storage vessels.
- ATC Premix Systems have shelf lives limited to two years.
- Contamination with other agents must be avoided.

## C. Agent Testing

Simple test procedures to determine quality of stored concentrate and premix solutions are given in Tables 11-2, 11-3 and 11-4. These tests evaluate solution strength, foam quality and film quality and should be run about once a year on any stored "Light Water" AFFF. Failure of the stored agent to meet the requirements of any one of these tests could be reason for adjustment or replacement. Consult your 3M Fire Protection Systems representative for further action if this occurs.

### 1. Determination of Solution Strength

"Light Water" 6% Concentrate is designed for use at 6% in water, but performs satisfactorily at solution strengths from 5 to 7%. To assure operation near the nominal 6% level, construction of a refractive index versus percent concentration curve is recommended (see Table 11-3 and 11-4). This procedure, involving small amounts of solution and little time is particularly useful for checking out proportioning equipment. A similar procedure can be used for "Light Water" 3% Concentrate or "Light Water" ATC.

### 2. Determination of Agent Foam Quality

A simple field test to determine foam quality is given in Table 11-2.

**Table 11-2**  
**Foam Test for Determining "Light Water" Agent Quality**

The procedure developed for field testing of premixes consists of the following:

- a. With a 10 ml. pipet or 10 ml. syringe add precisely 10 ml. of premix to a 100 ml. graduate cylinder. (Preferred type has ground glass stopper.)
- b. Place stopper in the graduate, and shake hard and rapidly 25 times.
- c. With a spatula push any foam clinging to sides of graduate down into the foam bulk.
- d. Read volume of top level of foam.
- e. If foam volume is less than 40 ml., the agent should be replaced.

3. Determination of Agent Film Quality

The film formation and sealability test procedure of MIL-F-24385B (paragraphs 3.3.1 and 4.7.6) should be used to evaluate film quality. Failure to pass this test indicates the agent should be replaced.

A simplified version of this test has been developed and is more convenient for field testing. The procedure is as follows:

- a. To a glass petri dish (60 mm. diameter) add cyclohexane or cigarette lighter fluid to give a depth of 1/8".
- b. Place dish on black surface and under a lamp if possible so as to aid in observing the film spread.
- c. With a medicine dropper carefully place three drops of *premix* on fuel surface at center of dish.
- d. With aid of reflected light observe the spreading film.
- e. After one minute, pass a lighted probe over the surface of fuel. *Be sure* to have a smothering plate handy in case of ignition.
- f. If no film is observed or if ignition occurs, the agent should be replaced.

**Note:** "Light Water" Agent testing service is available through the Fire Protection System Tech-Service Laboratory. Refer to your authorized distributor or sales representative for sampling instructions and Tech-Service forms.

**Table 11-3**  
The Determination of Concentration by Refractive Index

The American Optical<sup>1</sup> portable refractometers (Catalog Nos. 10419, 10440 and 10441) are useful instruments for determining the agent concentration of "Light Water" AFFF in both fresh and sea water solutions. The method is rapid and requires only a small amount of solution.

The operator first should familiarize himself with the instrument and its use. This is the best accomplished by reading the instruction manual and preparing test solutions of known concentrations. The use of this instrument is facilitated when accompanied by the following list of materials (field kit):

1 cc. Syringe  
25 ml. Graduate  
Medicine Droppers  
Cleansing Tissues  
Graph — Refractometer Reading vs.  
% Concentration (See Table 11-4)

To prepare for field testing, it is necessary to construct a graph plotting the refractometer reading vs. concentration using the portable refractometer. The reference graph should include the plots for fresh and sea water solutions. A minimum of three points is necessary for each agent. This can be accomplished by preparing two accurate test solutions as 4% and 8% (or 5% and 10%). The refractometer reading of these two solutions and of the water only provide the three points. When plotted on the graph paper, the reference line drawn through the points should be straight. It is suggested that the above procedure be repeated several times to assure familiarization and confidence in the instrument.

To insure accuracy in the field, it is advisable to prepare the two known solutions with the test agent and water at the site and determine their refractometer readings. The solutions can be prepared using the materials listed in the above traveling field kit.

If the refractometer readings of these solutions fall on the plotted reference line, concentrations are read directly at the reference line intersect. If the readings differ, a new reference line should be drawn and used for determining the concentration of the proportioned solution.

Attached to this instruction bulletin are sample graphs plotting refractometer readings and percent concentrations. Reference lines are included for "Light Water" Agent with both fresh and sea water solutions. These curves are illustrative only. It is necessary to construct actual curves in the field.

Refractometer No. 10419 is a precision instrument and has the accuracy of a laboratory bench model. Catalog No. 10440, though not as precise an instrument, is accurate within 1/2% concentration level and is very suitable for adjusting proportioning systems. Catalog No. 10441 is also suitable for adjusting proportioning systems. It is suggested that No. 10419 be used when greater accuracy is required.

**CAMBRIDGE INSTRUMENTS, Scientific Instruments Div.**  
Buffalo, N.Y. 14215

716-891-4304

~~716-891-3000~~

**DIST:**

Misco Prod.	Cleveland, OH	800-358-1100
DWR Scientific	S.F. CA	415-462-7150
Winn Oil Co.	Fullerton, CA	213-334-0231
GEN. Medical	Richmond, VA	804-264-7506
LYKES PASCO	Dade City, FL	904-567-5211

Post-  
To  
Cc  
Ca  
Det  
To

Will  
point effect  
deliberate effect

Page 9 of 9



#### D. Water Considerations

"Light Water" Concentrates are designed for use with fresh or sea water. No problem has been encountered using brackish water or water containing a high concentration of minerals or organics. However, it is not advisable to dilute Concentrate with water containing wetting agents or corrosion inhibitors. If this situation is difficult to avoid, contact your local 3M representative for a recommendation.

#### E. Compatibility With Other Class "B" Extinguishing Agents

Occasionally "Light Water" Agents must be applied to a fire simultaneously with protein or fluoroprotein foam. Tests have shown that "Light Water" Agent can be used with either in any sequence of operation. Their use in combination detracts from the efficiency of "Light Water" Agents, but enhances the performance of protein or fluoroprotein foams.

"Light Water" Concentrates should not be mixed with concentrates of other manufacturers.

"Light Water" Agent's compatibility with dry chemical agents has popularized twin unit systems. Both types of agents contribute superior knockdown; "Light Water" Agent secures against reflash while dry chemical suppresses three-dimensional fires.

#### F. Limitations of "Light Water" AFFF Use

Like all water-based foams, "Light Water" Agent is *not* suitable for fires involving "live" electrical equipment (Class "C") or fires of materials that react violently with water, such as sodium metal (Class "D").

"Light Water" Agent is also *not* recommended for use on fires involving liquified gases, such as propane, as severe boiling and increased vapor release will occur due to the latent heat of the water draining from the foam. Recent test work shows some success with high expansion foams in retarding the vaporization rate of such liquified gas spills. "Light Water" Agent may also be used in high expansion devices to gain similar reduced vapor evolution rates.

Caution should be exercised in applying "Light Water" Agents to vessels containing hot oils, asphalts, etc., which are well above the normal boiling point of water after burning for an extended period of time. The water in the premix may cause violent frothing and even forceful expulsion of a portion of the contents.

"Light Water" AFFF is not intended for hazards involving polar solvents or alcohols in depth. The use of "Light Water" ATC is recommended for these hazards.

### G. Safety, Handling, and Environmental Impact

"Light Water" Brand Concentrates may be classified as practically non-toxic orally based on acute oral LD<sub>50</sub> values in rats. The concentrates have also been found to be essentially non-irritating to the skin of albino rabbits. Eye irritation of albino rabbits is limited to mild and conjunctival irritation. Eye "wash-out" with water immediately following contact is recommended and should arrest/reverse the irritation process.

3M is conducting an ongoing program to evaluate and assess the environmental impact of its new and existing products. Where possible, all "Light Water" Agents have been tested in accordance with the "Standard Methods for the Examination of Water and Wastewater," 13th Edition, 1971. Conclusions from these tests are:

1. "Light Water" Agents are biodegradable.
2. "Light Water" Agents can be treated in biological treatment system.
3. "Light Water" Agents exhibit low toxicity to aquatic organisms.

For example, oxygen uptake tests have shown that no microbial inhibition will occur at concentrations less than 1000 mg./l. for 6% concentrate (16,000 mg./l. for 6% solutions). A conventional activated sludge pilot plant was successfully operated using a feed source which consisted of a mixture of settled domestic sewage and "Light Water" Agent.

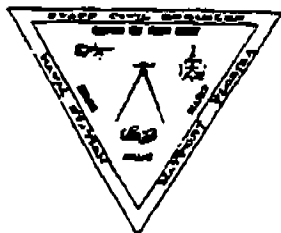
Acute toxicity data on various aquatic organisms show that the dilution of the applied solutions in firefighting situations should be sufficient to insure no adverse effect on aquatic life.

An evaluation of your specific situation should be based on the particular circumstances and factors involved and should include consultation with the appropriate pollution control agencies.

When environmental properties of the "Light Water" Concentrates are needed, contact Fire Protection Systems, 3M.



**APPENDIX E**  
**DREDGE MATERIAL DISPOSAL**  
**CORRESPONDENCE**



STAFF CIVIL ENGINEER DEPARTMENT  
NAVAL STATION

MAYPORT, FLORIDA 32228-0067

IN REPLY REFER TO:

N4A

7 Apr 95

From: John Veal, Deputy Staff Civil Engineer  
To: Eunice Ford, CEASJ-DP-1

Subj: REMOVAL OF MATERIAL IN UPLAND DISPOSAL AREAS AT NAVAL STATION  
MAYPORT, FLORIDA

1. During our fonecon today you outlined two alternatives for overcoming potential regulatory issues regarding removal and disposal of material from the spoil areas. In the first alternative NAVSTA would take the responsibility for coordinating with the Environmental Protection Agency for necessary approvals. Under the second approach the Corps of Engineers would advise the Environmental Protection Agency of the Corps' plans to remove and dispose of the material, and then proceed absent specific objections from EPA. Under the second alternative the COE would initiate appropriate correspondence and otherwise work whatever issues might arise.

2. I have discussed these approaches with Mike Davenport and Cheryl Mitchell in our Environmental Division, and we agree that using the COE as our agent in coordinating with the EPA is the preferred alternative. Therefore, you are requested to move forward with removal and disposal of the spoil material after the EPA has been advised of the plan. Request you provide NAVSTA with information copies of all correspondence, and in general keep Cheryl Mitchell abreast of progress so that she may keep her partnering group current on the status of the dredge spoil areas.

3. You are requested to identify in-house costs required to proceed with this effort.



John Veal

cc: Lcdr. Tomlinson  
Mike Davenport  
Cheryl Mitchell



MAY 25 1995

*Ford*

Planning Division  
Environmental Branch

SUBJECT: Mayport Naval Station Dredged Material Disposal Areas

Joseph R. Franzmathes  
Director, Waste Management Division  
U.S. Environmental Protection Agency, Region IV  
345 Courtland Street NE.  
Atlanta, Georgia 30365

Dear Mr. Franzmathes:

The Engineering Division of the Staff Civil Engineer Department at the U.S. Naval Station, Mayport, Florida, has requested the Jacksonville District, U.S. Army Corps of Engineers, to provide Architect/Engineer (A/E) design services for removal of dredged material from upland disposal areas D/A-N and D/A-O. Construction includes the removal of dredged material and separation of recyclable material for use in road asphalt mix, concrete, etc. and disposal of non-recyclable material in a landfill. The intention of this project is to provide capacity for future maintenance dredging of the Mayport basin.

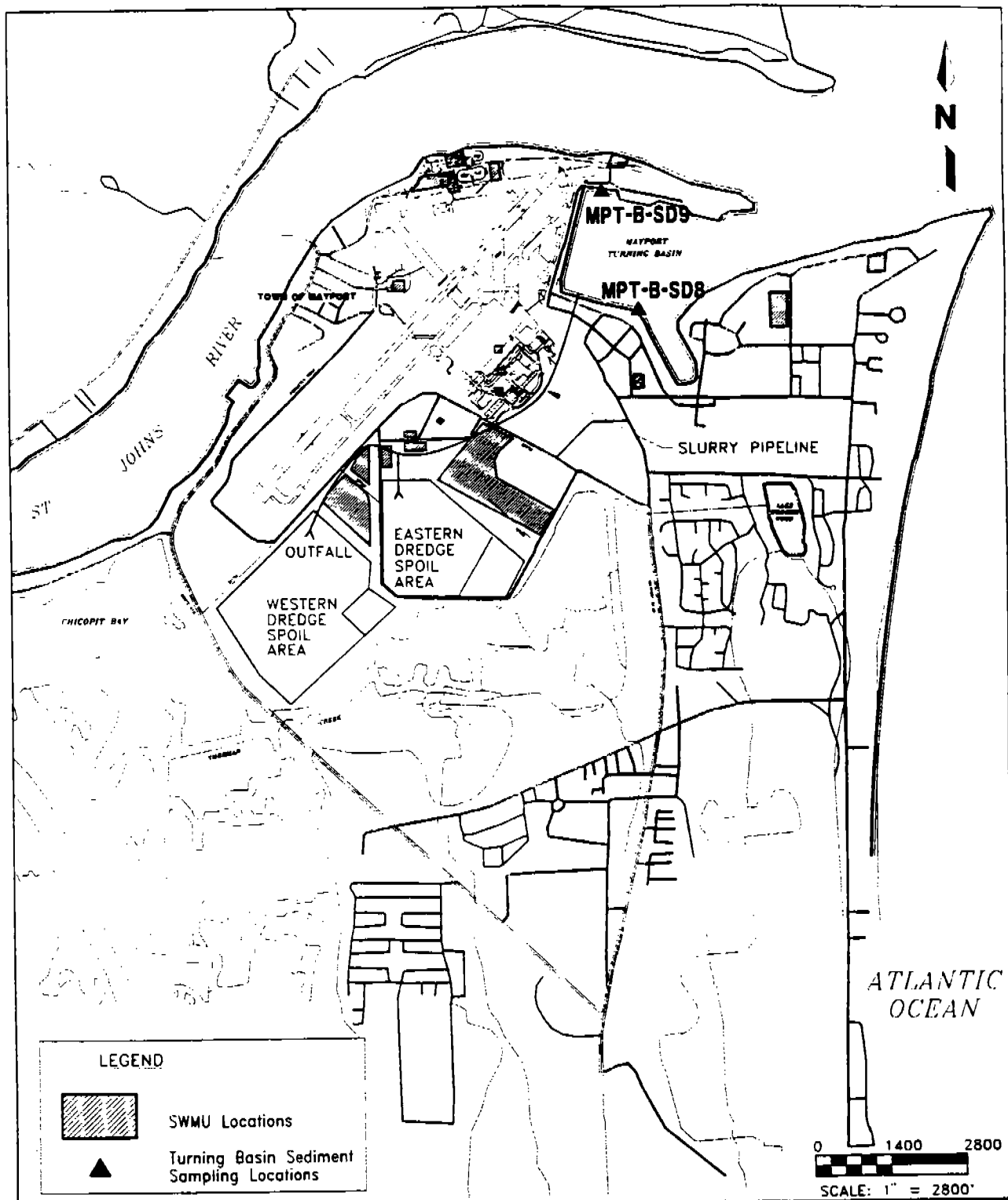
The project is scheduled to start at the end of calendar year 1995 or the beginning of 1996. The project will take approximately 1 year to complete.

Sincerely,

Richard B. Bonner, P.E.  
Deputy District Engineer  
for Project Management

✓ bcc:  
CESAJ-DP-1

**APPENDIX F**  
**MAYPORT TURNING BASIN 1993**  
**SAMPLING EVENT**



**FIGURE 1**  
**TURNING BASIN SEDIMENT**  
**SAMPLING LOCATIONS AT**  
**NAVSTA MAYPORT**



**MAYPORT TURNING BASIN**  
**SEDIMENT SAMPLING**  
**AND ANALYSIS**

**U.S. NAVAL STATION**  
**MAYPORT, FLORIDA**

**Table 1**  
**Volatile Organic Analytes not Detected by TCLP Analysis in Sediment Samples**  
**Collected from the Mayport Turning Basin**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Matrix:				Sediment	Sediment
Location/Sample No.:				MPT-BG-SD08	MPT-BG-SD09
Date Sampled:				2-Dec.-93	2-Dec.-93
CAS RN	Common Name	Regulatory Level	Laboratory detection Level	Conc.	Conc.
71-43-2	Benzene	0.05	0.25	< 0.25	< 0.25
78-93-3	2-Butanone	200.0	100.0	< 100.0	< 100.0
56-23-5	Carbon Tetrachloride	0.50	0.25	< 0.25	< 0.25
108-90-7	Chlorobenzene	100.0	50.0	< 50.0	< 50.0
67-66-3	Chloroform	6.0	3.0	< 3.0	< 3.0
107-06-2	1,2-Dichloroethane	0.50	0.25	< 0.25	< 0.25
75-35-4	1,1-Dichloroethene	0.70	0.35	< 0.35	< 0.35
127-18-4	Tetrachloroethene	0.70	0.35	< 0.35	< 0.35
79-01-6	Trichloroethene	0.50	0.25	< 0.25	< 0.25
75-01-4	Vinyl Chloride	0.20	0.10	< 0.10	< 0.10
Notes: Concentrations are reported in milligrams per liter. CAS RN = chemical abstract service registry number. Conc. = concentration.					

**Table 2**  
**Semivolatile Organic Analytes not Detected by TCLP Analysis in Sediment Samples**  
**Collected from the Mayport Turning Basin**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Matrix:				Sediment	Sediment
Location/Sample No.:				MPT-BG-SD08	MPT-BG-SD09
Date Sampled:				2-Dec-93	2-Dec-93
CAS RN	Common Name	Regulatory Level	Laboratory detection Level	Conc.	Conc.
106-46-7	1, 4-Dichlorobenzene	7.5	3.75	< 3.75	< 3.75
121-14-2	2, 4-Dinitrotoluene	0.13	0.065	< 0.065	< 0.065
118-74-1	Hexachlorobenzene	0.13	0.065	< 0.065	< 0.065
87-68-3	Hexachlorobutadiene	0.5	0.25	< 0.25	< 0.25
67-72-1	Hexachloroethane	3.0	1.5	< 1.5	< 1.5
95-48-7	2-Methylphenol	200	100	< 100	< 100
108-39-4	3-Methylphenol	200	100	< 100	< 100
106-44-5	4-Methylphenol	200	100	< 100	< 100
98-95-3	Nitrobenzene	2.0	1.0	< 1.0	< 1.0
87-86-5	Pentachlorophenol	100	50	< 50	< 50
110-86-1	Pyridine	5.0	2.5	< 2.5	< 2.5
95-95-4	2, 4, 5-Trichlorophenol	400	200	< 200	< 200
88-06-2	2, 4, 6-Trichlorophenol	2.0	1.0	< 1.0	< 1.0
Notes: Concentrations are reported in milligrams per liter. CAS RN = chemical abstract service registry number. Conc. = concentration.					

**Table 3**  
**Pesticide and Herbicide Analytes not Detected by TCLP Analysis in Sediment Samples**  
**Collected from the Mayport Turning Basin**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Matrix:				Sediment	Sediment
Location/Sample No.:				MPT-BG-SD08	MPT-BG-SD09
Date Sampled:				2-Dec.-93	2-Dec.-93
CAS RN	Common Name	Regulatory Level	Laboratory detection Level	Conc.	Conc.
57-74-9	Chlordane	0.03	0.015	< 0.015	< 0.015
72-20-8	Endrin	0.020	0.010	< 0.010	< 0.010
58-89-9	Gamma-BHC (Lindane)	0.40	0.20	< 0.20	< 0.20
76-44-8	Heptachlor	0.0080	0.0040	< 0.0040	< 0.0040
1024-57-3	Heptachlor Epoxide	0.0080	0.0040	< 0.0040	< 0.0040
72-43-5	P, P'Methoxychlor	10.0	5.0	< 5.0	< 5.0
8001-35-2	Toxaphene	0.5	0.25	< 0.25	< 0.25
94-75-7	2, 4-D	10.0	5.0	< 5.0	< 5.0
93-76-5	2, 4, 5-TP (Silvex)	1.0	0.5	< 0.5	< 0.5
Notes: Concentrations are reported in milligrams per liter. CAS RN = chemical abstract service registry number. Conc. = concentration.					



**Table 4**  
**Inorganic Analytes not Detected by TCLP Analysis in Sediment Samples Collected from**  
**the Mayport Turning Basin**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Matrix:				Sediment	
Location/Sample No.:				MPT-BG-SD08	MPT-BG-SD09
Date Sampled:				2-Dec-93	2-Dec-93
CAS RN	Common Name	Regulatory Level	Laboratory detection Level	Conc.	Conc.
7440-38-2	Arsenic	5.0	2.5	< 2.5	< 2.5
7440-39-3	Barium	100	50.0	< 50.0	< 50.0
7440-43-9	Cadmium	1.0	0.5	< 0.5	< 0.5
1333-82-0	Chromium	5.0	2.5	< 2.5	< 2.5
7439-92-1	Lead	5.0	2.5	< 2.5	< 2.5
7439-97-6	Mercury	0.2	0.1	< 0.1	< 0.1
7782-49-2	Selenium	1.0	0.5	< 0.5	< 0.5
7440-22-4	Silver	5.0	2.5	< 2.5	< 2.5
Notes: Concentrations are reported in milligrams per liter. CAS RN = chemical abstract service registry number. Conc. = concentration.					

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Delivery Group:			11		11	
Sample Matrix:			Sediment		Sediment	
Location/Sample No.:			MPT-BG-SD08		MPT-BG-SD09	
Date Sampled:			2-Dec.-93		2-Dec.-93	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.
67-64-1	Acetone	µg/kg	63	BJ	45	BJ
110-75-8	2-Chloroethylvinylether	µg/kg	14	J	-	
78-83-1	Isobutyl Alcohol	µg/kg	85	BJ	11	BJ
75-09-2	Methylene Chloride	µg/kg	50	BJ	17	BJ

Notes: CAS RN = chemical abstract service registry number.  
µg/kg = micrograms per kilogram.  
Conc. = concentration.  
- = concentration less than the contract Required Quantitation Limit (CROL).  
Qual. = qualifier.  
J = estimated concentration.  
B = analyte detected in a corresponding blank.

**Table 6**  
**Semivolatile Organic and Pesticide Analytes Detected in the**  
**Mayport Turning Basin Sediment Samples**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Delivery Group:			13/316PS		13/316PS	
Sample Matrix:			Sediment		Sediment	
Location/Sample No.:			MPT-BG-SD08		MPT-BG-SD09	
Date Sampled:			2-Dec.-93		2-Dec.-93	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.
83-32-9	Acenaphthene	µg/kg	-		91	J
120-12-7	Anthracene	µg/kg	170	J	440	J
56-55-3	Benzo(a)anthracene	µg/kg	350	J	3,000	
191-24-2	Benzo(g,h,i)perylene	µg/kg	-		1,000	J
205-99-2	Benzo(b)fluoranthene	µg/kg	470	JX	5,400	X
207-08-9	Benzo(k)fluoranthene	µg/kg	470	JX	5,400	X
50-32-8	Benzo(a)pyrene	µg/kg	-		2,100	
218-01-9	Chrysene	µg/kg	370	J	2,900	
53-70-3	Dibenz(a,h)anthracene	µg/kg	-		290	J
206-44-0	Fluoranthene	µg/kg	660	J	7,300	
86-73-7	Fluorene	µg/kg	-		110	J
193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	-		1,000	
85-01-8	Phenanthrene	µg/kg	-		3,100	
129-00-0	Pyrene	µg/kg	770	J	6,100	
117-81-7	Bis (2-ethylhexyl)phthalate	µg/kg	470	BJ	200	BJ
84-74-2	Di-n-butylphthalate	µg/kg	160	J	160	J
106-46-7	1, 4-Dichlorobenzene	µg/kg	-		110	J
319-85-7	Beta - BHC	µg/kg	5.6	P	15	P
50-29-3	4, 4'-DDT	µg/kg	-		6.4	

Notes: CAS RN = chemical abstract service registry number.  
µg/kg = micrograms per kilogram.  
Conc. = concentration.  
- = concentration less than the contract Required Quantitation Limit (CRQL).  
Qual. = qualifier.  
J = estimated concentration.  
B = analyte detected in a corresponding blank.  
X = indistinguishable coeluting isomers.  
P = > 25 percent difference for detected concentrations between two GC columns, lower value reported.

**Table 7**  
**Inorganic Analytes Detected in the Mayport Turning Basin Sediment Samples**

Technical Memorandum  
Mayport Turning Basin Characterization Activities  
NAVSTA Mayport, Mayport, Florida

Sample Delivery Group:			937366		937366	
Sample Matrix:			Sediment		Sediment	
Location/Sample No.:			MPT-BG-SD08		MPT-BG-SD09	
Date Sampled:			2-Dec.-93		2-Dec.-93	
CAS RN	Common Name	Units	Conc.	Qual.	Conc.	Qual.
7440-38-2	Arsenic	mg/kg	26.8		5.1	
7429-90-5	Aluminum	mg/kg	12,500		3,120	
7440-39-3	Barium	mg/kg	19.9	J	157	
7440-70-2	Calcium	mg/kg	26,900		125,000	
7440-47-3	Chromium	mg/kg	34.3		356	
7440-48-4	Cobalt	mg/kg	-		1.4	J
7440-50-8	Copper	mg/kg	712		55.8	
7439-89-6	Iron	mg/kg	17,000		5,810	
7493-92-1	Lead	mg/kg	15.3		99.1	
7439-95-4	Magnesium	mg/kg	9,030		3,370	
7439-96-5	Manganese	mg/kg	264		96.6	
7440-02-0	Nickel	mg/kg	17.4	J	-	
7440-09-7	Potassium	mg/kg	3,620		821	J
7782-49-2	Selenium	mg/kg	7.6		-	
7440-23-5	Sodium	mg/kg	35,100		7,890	
7440-62-2	Vanadium	mg/kg	34.2		8	J
7440-66-6	Zinc	mg/kg	171		995	

Notes: CAS RN = chemical abstract service registry number.  
µg/kg = micrograms per kilogram.  
Conc. = concentration.  
- = concentration less than the contract Required Quantitation Limit (CROL).  
Qual. = qualifier.  
J = estimated concentration.

**APPENDIX G**  
**GROUNDWATER ELEVATION DATA**

Table G-1

## Appendix G, Potentiometric Surface Survey

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)	WATER LEVEL		WATER LEVEL		WATER LEVEL	
								DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MAY-265-5			372958.91			2200963.68	9.37						
MPT-1-1			372829.0			2202286.9	16.96	10.92	6.04	11.91	5.05		
MPT-1-2			372520.3			2202618.3	16.89			12.20	4.69		
MPT-1-P1			372912.0			2203345.2	7.11	4.24	2.87	4.90	2.21		
MPT-1-P2			373338.7			2202891.0	11.77	7.71	4.06	8.36	3.41		
MPT-1-P3			372166.0			2202846.0	11.04	7.36	3.68	7.98	3.06		
MPT-2-1			365498.7			2199297.5	10.33						
MPT-2-2			368573.7			2199855.4	7.56						
MPT-2-3			364604.9			2199038.7	17.20						
MPT-2-4R			365011.2			2199896.7	8.29						
MPT-2-5			365958.5			2200114.4	9.91						
MPT-2-6			365492.5			2199779.9	9.43	3.37	6.06	4.44	4.99	4.64	4.79
MPT-2-7D			365934.4			2197403.6	9.70	6.29	3.41	6.34	3.36	6.76	2.94
MPT-2-7S			365926.7			2197405.6	10.49	5.98	4.51	6.07	4.42	6.56	3.93
MPT-2-8			365838.5			2200144.7	10.55	3.66	6.89	3.91	6.64	4.54	6.01
MPT-2-9D			366127.7			2200338.7	10.49						
MPT-2-9S			366127.4			2200345.5	10.50						
MPT-2-10			366391.8			2200333.6	10.02	3.65	6.37	3.92	6.10	4.68	5.34
MPT-2-15-DR			367585.3			2200458.0	6.89						
MPT-2-15-SR			367584.9			2200460.6	6.65						
MPT-2-MW-11I			368639.90			2198820.77	5.77						
MPT-2-MW-11S			368644.3			2198829.9	5.73						
MPT-2-MW-12D			368319.8			2198211.9	5.42	2.68	2.74	2.83	2.59	3.40	2.02
MPT-2-MW-12S			368318.3			2198209.6	5.51	3.01	2.50	3.25	2.26	3.91	1.60
MPT-2-MW-13S			365692.6			2200319.6	7.57						
MPT-2-MW-16D			365475.2			2200286.8	6.69	3.21	3.48			3.40	3.29
MPT-2-MW-16S			365475.4			2200289.0	6.73						



**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X			Y			Z ELEV (MSL)	WATER LEVEL 2/14/94		WATER LEVEL 3/14/94		WATER LEVEL 4/19/94	
	EASTING ST PLN	NORTHING ST PLN						DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-2-MW-34I	366613.91	2202541.83				10.81							
MPT-2-MW-34S	366609.38	2202536.55				10.46							
MPT-2-MW-35I	363450.20	2200285.60				7.40							
MPT-2-MW-35S	363445.31	2200281.06				7.36							
MPT-2-MW-36D	364166.15	2200986.02				7.47							
MPT-2-MW-36I	364162.25	2200981.47				7.57							
MPT-2-MW-36S	364158.18	2200977.04				7.58							
MPT-2-MW-37I	364906.60	2201740.28				6.84							
MPT-2-MW-37S	364902.28	2201735.35				6.93							
MPT-2-MW-38D	365571.52	2202412.40				8.38							
MPT-2-MW-38I	365576.46	2202418.08				8.16							
MPT-2-MW-38S	365562.98	2202402.71				8.14							
MPT-2-P1	365497.2	2199063.9				7.75	2.65	2.60	5.15				
MPT-2-P2	365498.3	2198464.0				7.97							
MPT-2-P3	363421.2	2198074.8				31.93	15.27	20.65	11.28	23.10	8.83		
MPT-2-P4	364241.4	2198966.8				32.74	18.95			24.70	8.04		
MPT-2-P5	366452.8	2201086.7				7.15	4.57	4.88	2.27	3.50	3.65		
MPT-2-P6	367964.8	2200321.5				5.10	2.81	3.06	2.04	5.12	-0.02		
MPT-2-P7	366597.0	2197396.9				7.95	3.42	3.62	4.33	4.15	3.80		
MPT-2-P8	367731.9	2197417.0				6.35	3.23	3.29	3.06	3.49	2.86		
MPT-2-P9	362977.9	2197566.0				32.18	16.95	21.12	11.06	23.97	8.21		
MPT-2-P10	363415.5	2195899.8				32.02				21.74	10.28		
MPT-2-P11	364395.6	2196198.9				31.85	14.85	15.57	16.28	21.15	10.70		
MPT-2-P12	365157.0	2196870.3				32.75							
MPT-2-P13	367408.9	2199402.7				11.87							
MPT-3-MW/3S	365692.60	2200319.46				7.57							
MPT-3-MW/8I	366068.69	2200551.45				6.51							



**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X Y Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-3-MW/8S	366069.80	2200556.08	6.37						
MPT-8-1	366284.7	2204730.6	10.19	8.14	2.05	9.16	1.03	9.82	0.37
MPT-8-2 **	366261.8	2204968.2	13.93			12.27	1.97	12.98	1.53
MPT-8-2	FREE PRODUCT DEPTH					11.91		12.31	
MPT-8-3 **	366363.4	2205069.4	13.72			12.03	1.73	13.29	1.39
MPT-8-3	FREE PRODUCT DEPTH					11.98		12.17	
MPT-8-4 **	366255.02	2205098.29	11.90	10.15	1.75	10.39	1.51	10.49	1.41
MPT-8-4	FREE PRODUCT DEPTH			NP		NP		NP	
MPT-8-5DD	366641.27	2203931.17	13.29	8.63	4.66	9.12	4.17	9.68	3.61
MPT-8-5I	366645.09	2203937.57	13.34						
MPT-8-5S	366639.77	2203928.57	13.00	5.84	7.16	6.73	6.27	7.77	5.23
MPT-8-6	366149.22	2204828.90	11.57	7.21	4.36	7.92	3.65		
MPT-8-7 **	366601.35	2205103.19	11.73			12.54	1.89	11.90	1.54
MPT-8-7	FREE PRODUCT DEPTH					9.40		9.91	
MPT-8-8	366882.67	2205160.82	13.12	8.78	4.34			9.95	3.17
MPT-8-MW9	366890.10	2204961.31	12.55						
MPT-8-MW10	366823.89	2205154.03	13.11						
MPT-8-MW11 **	366493.34	2205203.57	11.46						
MPT-8-MW11	FREE PRODUCT DEPTH								
MPT-8-MW12	366969.93	2205289.81	12.93						
MPT-8-MW13I	366852.94	2205389.96	11.33						
MPT-8-MW13S	366852.94	2205389.96	11.33						
MPT-8-MW14	366701.22	2205382.05	10.72						
MPT-8-MW15I	366578.64	2205346.55	9.96						
MPT-8-MW15S	366393.49	2205227.24	10.03						

### Table G-1

**Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida**

WELL/LOCATION	X			Y			Z	WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	2/14/94		3/14/94		4/19/94					
				DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)				
MPT-8-MW17	366229.49	2205125.44	10.89										
MPT-8-MW18S	366161.36	2205001.92	8.80										
MPT-8-MW19	366196.36	2205168.89	5.24										
MPT-8D-P1	367186.01	2204936.81	12.89	5.12	7.77			6.01	6.88		7.02	5.87	
MPT-8-P2	368584.22	2205240.42	12.70	10.15	2.55			10.62	2.08		11.13	1.57	
MPT-8-P3	368103.65	2205051.43	13.17	10.35	2.82			10.95	2.22		11.50	1.67	
MPT-8-P4	367807.85	2204484.88	14.67	6.60	8.07			7.89	6.78		11.00	3.67	
MPT-8-P5	367285.99	2203955.67	14.00	2.65	11.35			3.18	10.82		9.37	4.63	
MPT-8-P6	366739.47	2203359.60	14.87	6.72	8.15			7.48	7.39		8.50	6.37	
MPT-9-1	367081.42	2205218.76	14.42	12.32	2.10			12.66	1.76		10.89	3.53	
MPT-9-2	367012.32	2205465.38	13.39					12.12	1.27		12.29	1.10	
MPT-9-3	367182.99	2205507.62	11.53					10.45	1.08		10.57	0.96	
MPT-9-P1	367665.52	2205413.58	12.22								11.21	1.01	
MPT-10-P1	365963.80	2204745.46	10.68	8.18	2.50			8.43	2.25		8.92	1.76	
MPT-11-MW-1	369851.23	2205130.88	12.16	10.77	1.39			10.80	1.36		11.15	1.01	
MPT-11-MW-2	369902.23	2205331.99	10.42	9.23	1.19			9.53	0.89		9.50	0.92	
MPT-11-MW-3	369802.75	2205342.93	9.97	8.90	1.07			9.16	0.81		6.07	3.90	
MPT-13-1	368004.04	2202051.50	13.06					7.11	5.95		7.60	5.46	
MPT-13-2	367476.40	2201306.77	12.79	6.61	6.18			6.81	5.98		6.92	5.87	
MPT-13-3	367740.56	2200862.19	10.41	5.72	4.69			5.83	4.58		6.05	4.36	
MPT-13-MW-4	367688.02	2201085.38	9.88	3.93	5.95			3.98	5.90		4.19	5.69	
MPT-13-MW-5	367718.67	2201499.20	10.04	3.34	6.70			3.57	6.47				
MPT-13-MW-6	367684.00	2201904.44	9.66	2.30	7.36			2.30	7.36		2.74	6.92	
MPT-13-MW-7	367844.66	2201097.10	8.56										
MPT-13-MW-8	367393.65	2202014.26	10.47										
MPT-13-MW-9	367548.90	2201869.31	9.29										
MPT-13-MW-10	367454.53	2201731.67	9.65										

### Table G-1

**Groups 1 and II RF  
U.S. Naval Station  
Mayport, Florida**

WELL/LOCATION	X			Y			Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	2/14/94		3/14/94		4/19/94		DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
				DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)						
MPT-13-P1	366075.64	2201715.98	11.04	3.05	7.99							4.54	6.50		
MPT-13-P3	367715.82	2201497.11	10.18	3.60	6.58				3.75	6.43		3.95	6.23		
MPT-13-P4	368068.63	2201301.35	9.31	2.88	6.43				3.17	6.14		4.04	5.27		
MPT-13-P5	367115.33	2200912.23	6.45	2.43	4.02				2.78	3.67		3.14	3.31		
MPT-13-P6	366879.48	2202120.09	10.16	1.55	8.61							2.76	7.40		
MPT-14-1	374860.12	2203770.87	7.56	5.72	1.84				5.97	1.59		6.10	1.46		
MPT-14-2	374680.54	2203728.01	8.64	6.35	2.29				6.58	2.06		7.01	1.63		
MPT-14-P1	374024.70	2203675.56	6.50	4.42	2.08				4.50	2.00		4.94	1.56		
MPT-14-P2	375562.21	2204016.18	5.71	3.81	1.90				3.02	2.69		4.50	1.21		
MPT-15-1	365726.19	2203210.74	12.14	4.68	7.46				5.55	6.59		6.53	5.61		
MPT-15-MW2S	365941.84	2202904.36	11.77												
MPT-15-MW3S	365641.31	2203086.80	11.26												
MPT-15-MW4S	365778.92	2203165.15	12.18												
MPT-15-MW5I	365767.26	2203378.84	12.45												
MPT-15-MW5S	365771.49	2203377.06	12.37												
MPT-15-P1	365689.15	2204181.74	13.28	7.25	6.03				7.98	5.30		8.83	4.45		
MPT-15-P2	365419.53	2203728.61	10.83	4.82	6.01				5.54	5.29		6.32	4.51		
MPT-15-P3	365853.46	2202423.37	10.07	1.42	8.65				1.95	8.12		4.32	5.75		
MPT-15-P4	362689.15	2199534.45	10.51												
MPT-16-2	367483.22	2205467.99	10.65	9.63	1.02				10.07	0.58		9.72	0.93		
MPT-16-3	367599.09	2205439.14	11.19	9.82	1.37				10.27	0.92		10.15	1.04		
MPT-16-MW-1D	367542.02	2205253.48	12.64	11.07	1.57				11.35	1.29		11.09	1.55		
MPT-16-MW4S	367272.91	2205968.20	14.65												
MPT-17-P1	369942.21	2201071.35	7.97	3.78	4.19				4.40	3.57		5.08	2.89		
MPT-17-P2	370630.28	2201113.61	7.72	4.08	3.64				4.45	3.27		5.01	2.71		
MPT-22-MW-1	366582.71	2200638.40	7.15	2.14	5.01				2.54	4.61		3.55	3.60		
MPT-22-1-2S	366541.22	2200765.09	6.70												

### Table G-1

**Groups I and II RF,  
U.S. Naval Station  
Mayport, Florida**

WELL/LOCATION	X			Y			Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	2/14/94		3/14/94		4/19/94	
										DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-26-MW1S	366351.90	2200738.10	5.85												
MPT-26-MW2S	366292.19	2200620.96	6.88												
MPT-26-MW3S	366203.95	2200519.84	7.05												
MPT-26-MW4S	366329.36	2200554.29	7.21												
MPT-28-MW1S	365615.58	2204661.18	11.85												
MPT-56-MW1S	367377.77	2201436.19	8.97												
MPT-B-MW1D	372334.05	2199050.39	7.50												
MPT-B-MW1I	372332.38	2199057.82	7.19												
MPT-B-MW1S	372330.80	2199064.76	7.19												
S-1	366904.01	2204505.60	14.66												
MPT-S-1R	368037.97	2206144.00	14.59												
S-2	366493.83	2205369.66	10.08												
S-3	366783.91	2205411.61	11.90												
S-4	364658.45	2198526.50	9.61							6.10				6.68	2.93
TPW-1 **	366232.15	2204912.59	12.15												
TPW-1	FREE PRODUCT DEPTH														
TPW-2 **	366304.88	2205010.74	10.61												
TPW-2	FREE PRODUCT DEPTH														
TPW-3 **	366405.18	2205026.60	13.45												
TPW-3	FREE PRODUCT DEPTH														
TPW-4 **	366462.32	2205084.36	14.88												
TPW-4	FREE PRODUCT DEPTH														
TPW-5 **	366412.44	2205153.22	14.87												
TPW-5	FREE PRODUCT DEPTH														
TPW-6 **	366617.42	2205191.68	15.66												
TPW-6	FREE PRODUCT DEPTH														
TPW-7 **	366561.47	2205099.05	14.34												

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)			WATER LEVEL		WATER LEVEL		WATER LEVEL	
										DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
TPW - 7	FREE PRODUCT DEPTH														
TPW - 8 **	366661.61			2205114.02			14.65								
TPW - 8	FREE PRODUCT DEPTH														
STAFF GAGE CG															
STAFF GAGE MU															
STAFF GAGE NB															
FUEL PIER STAGE							11.30								

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

**Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida**

WELL/LOCATION	X			Y			Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	DEPTH (TOC)	5/13/94		DEPTH (TOC)	7/1/94		DEPTH (TOC)	7/24/94				
MAY-265-5	372958.91	2200963.68	9.37		8.38	8.58		12.37	4.59		12.32	4.64			
MPT-1-1	372829.0	2202286.9	16.96		12.38	4.51		12.25	4.64		12.54	4.35			
MPT-1-2	372520.3	2202618.3	16.89		4.76	2.35					4.70	2.41			
MPT-1-P1	372912.0	2203345.2	7.11		8.38	3.39					8.57	3.20			
MPT-1-P2	373338.7	2202891.0	11.77		7.91	3.13					7.66	3.38			
MPT-1-P3	372166.0	2202846.0	11.04												
MPT-2-1	365498.7	2199297.5	10.33												
MPT-2-2	368573.7	2199855.4	7.56								3.65	3.91			
MPT-2-3	364604.9	2199038.7	17.20												
MPT-2-4R	365011.2	2199896.7	8.29												
MPT-2-5	365958.5	2200114.4	9.91												
MPT-2-6	365492.5	2199779.9	9.43					4.47	4.96						
MPT-2-7D	365934.4	2197403.6	9.70		6.66	3.04					3.07	6.36			
MPT-2-7S	365926.7	2197405.6	10.49		6.67	3.82					6.78	2.92			
MPT-2-8	365838.5	2200144.7	10.55		4.56	5.99					6.01	4.48			
MPT-2-9D	366127.7	2200338.7	10.49								3.51	7.04			
MPT-2-9S	366127.4	2200345.5	10.50												
MPT-2-10	366391.8	2200333.6	10.02		4.55	5.47					3.20	6.82			
MPT-2-15-DR	367585.3	2200458.0	6.89												
MPT-2-15-SR	367584.9	2200460.6	6.65												
MPT-2-MW-11I	368639.90	2198820.77	5.77								3.15	2.62			
MPT-2-MW-11S	368644.3	2198829.9	5.73												
MPT-2-MW-12D	368319.8	2198211.9	5.42		3.04	2.38		3.26	2.16		2.94	2.48			
MPT-2-MW-12S	368318.3	2198209.6	5.51		3.50	2.01		3.64	1.87		2.78	2.73			
MPT-2-MW-13S	365692.6	2200319.6	7.57								1.56	6.01			
MPT-2-MW-16D	365475.2	2200286.8	6.69		3.48	3.21					4.09	2.60			
MPT-2-MW-16S	365475.4	2200289.0	6.73		3.79	2.94									



## Table G-1

**Groups I and II RF  
U.S. Naval Station  
Mayport, Florida**

WELL/LOCATION	X Y Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	5/13/94		7/1/94		7/24/94	
				DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-2-MW-34I	366613.91	2202541.83	10.81					13.70	-2.89
MPT-2-MW-34S	366609.38	2202536.55	10.46					1.15	9.31
MPT-2-MW-35I	363450.20	2200285.60	7.40					4.80	2.60
MPT-2-MW-35S	363445.31	2200281.06	7.36					1.90	5.46
MPT-2-MW-36D	364166.15	2200986.02	7.47					5.40	2.07
MPT-2-MW-36I	364162.25	2200981.47	7.57					5.55	2.02
MPT-2-MW-36S	364158.18	2200977.04	7.58					3.55	4.03
MPT-2-MW-37I	364906.60	2201740.28	6.84					5.15	1.69
MPT-2-MW-37S	364902.28	2201735.35	6.93					2.50	4.43
MPT-2-MW-38D	365571.52	2202412.40	8.38					6.23	2.15
MPT-2-MW-38I	365576.46	2202418.08	8.16					5.25	2.91
MPT-2-MW-38S	365562.98	2202402.71	8.14					2.69	5.45
MPT-2-P1	365497.2	2199063.9	7.75	2.72	5.03				
MPT-2-P2	365498.3	2198464.0	7.97						
MPT-2-P3	363421.2	2198074.8	31.93	24.03	7.90			25.04	6.89
MPT-2-P4	364241.4	2198966.8	32.74	25.15	7.59			26.02	6.72
MPT-2-P5	366452.8	2201086.7	7.15	4.82	2.33			3.71	3.44
MPT-2-P6	367964.8	2200321.5	5.10	3.06	2.04			2.45	2.65
MPT-2-P7	366597.0	2197396.9	7.95	2.40	5.55			3.74	4.21
MPT-2-P8	367731.9	2197417.0	6.35	3.44	2.91			2.94	3.41
MPT-2-P9	362977.9	2197566.0	32.18	25.23	6.95			26.20	5.98
MPT-2-P10	363415.5	2195899.8	32.02	24.00	8.02			27.51	4.51
MPT-2-P11	364395.6	2196198.9	31.85	25.36	6.49			26.01	5.84
MPT-2-P12	365157.0	2196870.3	32.75						
MPT-2-P13	367408.9	2199402.7	11.87					1.56	10.31
MPT-3-MW/3S	365692.60	2200319.46	7.57						
MPT-3-MW/8I	366068.69	2200551.45	6.51						



**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X Y Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
				EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)
MPT-3-MW/8S	366069.80	220556.08	6.37						
MPT-8-1	366284.7	2204730.6	10.19						
MPT-8-2 **	366261.8	2204968.2	13.93						
MPT-8-2	FREE PRODUCT DEPTH								
MPT-8-3 **	366363.4	2205069.4	13.72						
MPT-8-3	FREE PRODUCT DEPTH								
MPT-8-4 **	366255.02	2205098.29	11.90						
MPT-8-4	FREE PRODUCT DEPTH								
MPT-8-5DD	366641.27	2203931.17	13.29						
MPT-8-5I	366645.09	2203937.57	13.34						
MPT-8-5S	366639.77	2203928.57	13.00						
MPT-8-6	366149.22	2204828.90	11.57						
MPT-8-7 **	366601.35	2205103.19	11.73						
MPT-8-7	FREE PRODUCT DEPTH								
MPT-8-8	366882.67	2205160.82	13.12						
MPT-8-MW9	366890.10	2204961.31	12.55						
MPT-8-MW10	366823.89	2205154.03	13.11						
MPT-8-MW11 **	366493.34	2205203.57	11.46						
MPT-8-MW11	FREE PRODUCT DEPTH								
MPT-8-MW12	366969.93	2205289.81	12.93						
MPT-8-MW13I	366852.94	2205389.96	11.33						
MPT-8-MW13S	366852.94	2205389.96	11.33						
MPT-8-MW14	366701.22	2205362.05	10.72						
MPT-8-MW15I	366578.64	2205346.55	9.96						
MPT-8-MW15S	366393.49	2205227.24	10.03						



**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X Y Z EASTING NORTHING ELEV ST PLN ST PLN (MSL)			WATER LEVEL 5/13/94		WATER LEVEL 7/1/94		WATER LEVEL 7/24/94	
				DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-13-P1	366075.64	2201715.98	11.04	4.58	6.46			4.17	6.87
MPT-13-P3	367715.82	2201497.11	10.18	4.97	5.21			3.57	6.61
MPT-13-P4	368068.63	2201301.35	9.31	3.93	5.38			2.98	6.33
MPT-13-P5	367115.33	2200912.23	6.45	3.02	3.43			1.65	4.80
MPT-13-P6	366879.48	2202120.09	10.16	2.75	7.41			1.14	9.02
MPT-14-1	374860.12	2203770.87	7.56	5.75	1.81	6.22	1.34	5.43	2.13
MPT-14-2	374680.54	2203726.01	8.64			6.90	1.74	6.64	2.00
MPT-14-P1	374024.70	2203675.56	6.50	4.66	1.84			4.53	1.97
MPT-14-P2	375562.21	2204016.18	5.71	3.97	1.74			4.10	1.61
MPT-15-1	365726.19	2203210.74	12.14					6.90	5.24
MPT-15-MW2S	365941.84	2202904.36	11.77					5.03	6.74
MPT-15-MW3S	365641.31	2203086.80	11.26					5.80	5.46
MPT-15-MW4S	365778.92	2203165.15	12.18					6.71	5.47
MPT-15-MW5I	365767.26	2203378.84	12.45					8.95	3.50
MPT-15-MW5S	365771.49	2203377.06	12.37					8.50	3.87
MPT-15-P1	365689.15	2204181.74	13.28	9.14	4.14			9.62	3.66
MPT-15-P2	365419.53	2203728.61	10.83	6.50	4.33			6.74	4.09
MPT-15-P3	365853.46	2202423.37	10.07	2.92	7.15			1.90	8.17
MPT-15-P4	362689.15	2199534.45	10.51					5.00	5.51
MPT-16-2	367483.22	2205467.99	10.65	9.62	1.03	10.46	0.19	10.60	0.05
MPT-16-3	367599.09	2205439.14	11.19	9.68	1.51	10.70	0.49	10.50	0.69
MPT-16-MW-1D	367542.02	2205253.48	12.64	10.93	1.71	11.93	0.71	11.90	0.74
MPT-16-MW4S	367272.91	2205968.20	14.65			9.45	5.20	9.65	5.00
MPT-17-P1	369942.21	2201071.35	7.97	5.08	2.89			4.74	3.23
MPT-17-P2	370630.28	2201113.61	7.72	4.98	2.74			4.43	3.29
MPT-22-MW-1	366582.71	2200638.40	7.15	3.56	3.59			2.68	4.47
MPT-22-2S	366541.22	2200765.09	6.70					2.77	

## Appendix G, Potentiometric Surface Survey

**Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida**

[illegible]

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X EASTING ST PLN	Y NORTHING ST PLN	Z ELEV (MSL)	WATER LEVEL		WATER LEVEL		WATER LEVEL	
				5/13/94		7/1/94		7/24/94	
				DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
TPW - 7								NP	
TPW - 8 **	366661.61	2205114.02	14.65					13.10	1.55
TPW - 8								NP	
STAFF GAGE CG									
STAFF GAGE MU									
STAFF GAGE NB									
FUEL PIER STAGE			11.30						



Table G-1

## Appendix G, Potentiometric Surface Survey

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X			Y			Z			WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	8/17/94		8/30/94		9/21/94			
								DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
MPT-2-MW-17D	365773.2	2197412.0	7.79					3.20	4.59	3.08	4.71		
MPT-2-MW-17S	365775.4	2197409.6	7.73					2.87	4.86	2.38	5.35		
MPT-2-MW-17I	365767.72	2197417.06	7.83					4.87	2.96	4.30	3.53		
MPT-2-MW-18I	366068.67	220055.45	6.51					3.78	2.73				
MPT-2-MW-18S	366069.80	2200556.08	6.37					2.58	3.79				
MPT-2-MW-19S	366211.19	2200025.53	32.50					20.40	12.10	22.65	9.85		
MPT-2-MW-20S	366630.67	2199688.94	32.09					11.38	20.71	14.74	17.35		
MPT-2-MW-21S	367896.59	2200051.54	7.56					4.00	3.56				
MPT-2-MW-22I	365528.11	2199562.64	7.19					4.28	2.91	4.80	2.39		
MPT-2-MW-22S	365528.11	2199568.02	8.09					2.75	5.34	2.18	5.91		
MPT-2-MW-23S	368953.87	2199413.41	5.22					2.92	2.30	1.82	3.40		
MPT-2-MW-23I	368950.54	2199408.85	5.36					3.15	2.21	2.18	3.18		
MPT-2-MW-24S	365636.75	2199025.95	32.29					19.30	12.99	22.23	10.06		
MPT-2-MW-25I	367458.00	2198858.49	31.78							28.11	3.67		
MPT-2-MW-25S	367452.88	2198863.75	32.07					29.29	2.78				
MPT-2-MW-26I	367495.39	2198091.42	32.35					6.20	26.15	29.15	3.20		
MPT-2-MW-26S	367500.15	2198100.29	32.41					29.80	2.61	12.34	20.07		
MPT-2-MW-27I	366591.50	2197395.60	7.99					5.41	2.58	4.80	3.19		
MPT-2-MW-28S	364986.80	2198675.14	17.36					6.28	11.08	6.24	11.12		
MPT-2-MW-29S	364774.65	2199942.71	9.43					3.58	5.85	1.35	8.08		
MPT-2-MW-30S	365514.38	2200720.64	8.91					3.08	5.83	0.67	8.24		
MPT-2-MW-31I	364246.62	2199944.99	9.08					6.35	2.73	5.75	3.33		
MPT-2-MW-31S	364241.07	2199939.63	9.14					2.26	6.88	0.20	8.94		
MPT-2-MW-32I	364816.58	2200580.26	8.39					7.75	0.64	7.15	1.24		
MPT-2-MW-32S	364813.13	2200575.95	12.49					2.60	9.89	0.25	12.24		
MPT-2-MW-33I	365495.74	2201367.39	9.33					6.45	2.88	5.72	3.61		
MPT-2-MW-33S	365490.50	2201361.44	9.47					2.02	7.45	0.10	7		





**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)	WATER LEVEL			WATER LEVEL			WATER LEVEL		
								8/17/94			8/30/94			9/21/94		
								DEPTH (TOC)	ELEV (MSL)		DEPTH (TOC)	ELEV (MSL)		DEPTH (TOC)	ELEV (MSL)	
MPT-3-MW/8S	366069.80	2200556.08	6.37								10.01	0.18		7.87	2.32	
MPT-8-1	366284.7	2204730.6	10.19					9.80	0.39		12.81	1.68		11.20	3.14	
MPT-8-2 **	366261.8	2204968.2	13.93					12.38	1.72		12.16			10.72		
MPT-8-2	FREE PRODUCT DEPTH							12.18			12.98	1.51		11.45	2.79	
MPT-8-3 **	366363.4	2205069.4	13.72					13.05	1.40		12.09			10.85		
MPT-8-3	FREE PRODUCT DEPTH							12.20			10.52	1.38		9.30	2.60	
MPT-8-4 **	366255.02	2205098.29	11.90					10.30	1.60		10.52			NP		
MPT-8-4	FREE PRODUCT DEPTH							NP			9.99	3.30		9.15	4.14	
MPT-8-5DD	366641.27	2203931.17	13.29								9.68	3.66		8.20	5.14	
MPT-8-5I	366645.09	2203937.57	13.34								8.67	4.33		6.81	6.19	
MPT-8-5S	366639.77	2203928.57	13.00								8.29	3.28		6.00	5.57	
MPT-8-6	366149.22	2204828.90	11.57					7.90	3.67		10.47	1.73		9.59	3.18	
MPT-8-7 **	366601.35	2205103.19	11.73					10.60	1.56		9.92			8.38		
MPT-8-7	FREE PRODUCT DEPTH							10.10			9.95	3.17		8.15	4.97	
MPT-8-8	366882.67	2205160.82	13.12					9.45	3.67		7.37	5.18		5.20	7.35	
MPT-8-MW9	366890.10	2204961.31	12.55					7.10	5.45		11.04	2.07		9.55	3.56	
MPT-8-MW10	366823.89	2205154.03	13.11					11.15	1.96		11.03	1.39		9.44	2.70	
MPT-8-MW11 **	366493.34	2205203.57	11.46					11.25	1.24		9.91			8.65		
MPT-8-MW11	FREE PRODUCT DEPTH							10.05			11.52	1.41		10.25	2.68	
MPT-8-MW12	366969.93	2205289.81	12.93					11.61	1.32					8.81	2.52	
MPT-8-MW13I	366852.94	2205389.96	11.33								10.15	1.18		8.55	2.78	
MPT-8-MW13S	366852.94	2205389.96	11.33					10.27	1.06		9.58	1.14		7.96	2.76	
MPT-8-MW14	366701.22	2205362.05	10.72					9.75	0.97					7.45	2.51	
MPT-8-MW15I	366578.64	2205346.55	9.96								9.28	1.14		7.29	2.75	
MPT-8-MW15S	366393.49	2205227.24	10.03					9.78	0.91		8.83			7.28		
MPT-8-MW15S **	FREE PRODUCT DEPTH							9.01								
MPT-8-SS	366393.49	2205227.24	10.03					9.28	0.75		9.14	0.89		7.62		*1

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)		WATER LEVEL		WATER LEVEL		WATER LEVEL	
									8/17/94 DEPTH (TOC)	8/17/94 ELEV (MSL)	8/30/94 DEPTH (TOC)	8/30/94 ELEV (MSL)	9/21/94 DEPTH (TOC)	9/21/94 ELEV (MSL)
MPT-8-MW17	366229.49	2205125.44		10.89							9.48	1.41	8.43	2.46
MPT-8-MW18S	366161.36	2205001.92		8.80					7.10	1.70	7.18	1.62		
MPT-8-MW19	366196.36	2205168.89		5.24										
MPT-8D-P1	367186.01	2204936.81		12.89					7.00	5.89			4.95	7.94
MPT-8-P2	368584.22	2205240.42		12.70							10.80	1.90	9.80	2.90
MPT-8-P3	368103.65	2205051.43		13.17							11.09	2.08	9.97	3.20
MPT-8-P4	367807.85	2204484.88		14.67							9.19	5.48	6.93	7.74
MPT-8-P5	367285.99	2203955.67		14.00									2.67	11.33
MPT-8-P6	366739.47	2203359.60		14.87							8.75	6.12	7.27	7.60
MPT-9-1	367081.42	2205218.76		14.42					12.90	1.52	12.80	1.62	11.61	2.81
MPT-9-2	367012.32	2205465.38		13.39					12.46	0.93	12.30	1.09	10.71	2.68
MPT-9-3	367182.98	2205507.62		11.53					10.78	0.75	10.59	0.94	9.03	2.50
MPT-9-P1	367665.52	2205413.58		12.22										
MPT-10-P1	365963.80	2204745.46		10.68					8.68	2.00	8.71	1.97	7.48	3.20
MPT-11-MW-1	369851.23	2205130.88		12.16							10.75	1.41	9.99	2.17
MPT-11-MW-2	369902.23	2205331.99		10.42							9.29	1.13		
MPT-11-MW-3	369802.75	2205342.93		9.97										
MPT-13-1	368004.04	2202051.50		13.06							7.30	5.76		2.15
MPT-13-2	367476.40	2201306.77		12.79							6.89	5.90	5.58	7.21
MPT-13-3	367740.56	2200862.19		10.41							6.02	4.39	4.82	5.59
MPT-13-MW-4	367688.02	2201085.38		9.88							5.13	4.75	2.15	7.73
MPT-13-MW-5	367718.67	2201499.20		10.04							3.70	6.34	2.62	7.42
MPT-13-MW-6	367684.00	2201904.44		9.66							2.45	7.21		
MPT-13-MW-7	367844.66	2201097.10		8.56							3.54	5.02		
MPT-13-MW-8	367393.65	2202014.26		10.47							2.90	7.57		
MPT-13-MW-9	367548.90	2201869.31		9.29							2.15	7.14		
MPT-13-MW-10	367454.53	2201731.67		9.65							2.56	7.09		

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)	WATER LEVEL		WATER LEVEL		WATER LEVEL	
								8/17/94	8/30/94	9/21/94	DEPTH (TOC)	DEPTH (TOC)	ELEV (MSL)
MPT-13-P1	366075.64	2201715.98	11.04										
MPT-13-P3	367715.82	2201497.11	10.18						3.89	2.82			7.36
MPT-13-P4	368068.63	2201301.35	9.31						2.49	2.00			7.31
MPT-13-P5	367115.33	2200912.23	6.45						5.82	2.23			4.22
MPT-13-P6	366879.48	2202120.09	10.16										
MPT-14-1	374860.12	2203770.87	7.56							4.71			2.85
MPT-14-2	374680.54	2203726.01	8.64						6.63	5.46			3.18
MPT-14-P1	374024.70	2203675.56	6.50						4.67	3.18			3.32
MPT-14-P2	375562.21	2204016.18	5.71						4.15	2.72			2.99
MPT-15-1	365726.19	2203210.74	12.14					6.43	6.79				
MPT-15-MW2S	365941.84	2202904.36	11.77					4.75	5.04	2.97			8.80
MPT-15-MW3S	365641.31	2203086.80	11.26					5.46	5.79	3.90			7.36
MPT-15-MW4S	365778.92	2203165.15	12.18					6.18	6.49	4.59			7.59
MPT-15-MW5I	365767.26	2203378.84	12.45						8.67	7.27			5.18
MPT-15-MW5S	365771.49	2203377.06	12.37					8.04	8.19	6.63			5.74
MPT-15-P1	365689.15	2204181.74	13.28						9.45	8.16			5.12
MPT-15-P2	365419.53	2203728.61	10.83						6.56	5.94			4.89
MPT-15-P3	365853.46	2202423.37	10.07						2.89				
MPT-15-P4	362689.15	2199534.45	10.51						4.77	3.25			7.26
MPT-16-2	367483.22	2205467.99	10.65						9.28	6.70			3.95
MPT-16-3	367599.09	2205439.14	11.19					10.26	9.96	9.93			1.26
MPT-16-MW-1D	367542.02	2205253.48	12.64					11.00	10.86	10.26			2.38
MPT-16-MW4S	367272.91	2205968.20	14.65						9.26	7.59			7.06
MPT-17	369942.21	2201071.35	7.97						4.89				
MPT-17	370630.28	2201113.61	7.72						4.75				

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
U.S. Naval Station  
Mayport, Florida

WELL/LOCATION	X			Y			Z			WATER LEVEL		WATER LEVEL		WATER LEVEL	
	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	EASTING ST PLN	NORTHING ST PLN	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)		8/17/94 DEPTH (TOC)	ELEV (MSL)	8/30/94 DEPTH (TOC)	ELEV (MSL)	9/21/94 DEPTH (TOC)	ELEV (MSL)
MPT-26-MW1S	366351.90	2200738.10	5.85									2.26	3.59		
MPT-26-MW2S	366292.19	2200620.96	6.88									2.72	4.16		
MPT-26-MW3S	366203.95	2200519.84	7.05									2.28	4.77		
MPT-26-MW4S	366329.36	2200554.29	7.21									2.88	4.33	1.31	5.90
MPT-28-MW1S	365615.58	2204661.18	11.85									9.93	1.92	8.66	3.19
MPT-56-MW1S	367377.77	2201436.19	8.97									2.50	6.47	1.29	7.68
MPT-B-MW1D	372334.05	2199050.39	7.50												
MPT-B-MW1I	372332.38	2199057.82	7.19												
MPT-B-MW1S	372330.80	2199064.76	7.19												
S-1	366904.01	2204505.60	14.66												
MPT-S-1R	368037.97	2206144.00	14.59									4.50	10.09	1.40	13.19
S-2	366493.83	2205369.66	10.08				8.82	1.26				8.89	1.19	7.41	2.67
S-3	366783.91	2205411.61	11.90				11.02	0.88				10.80	1.10	9.00	2.90
S-4	364658.45	2199526.50	9.61									6.43	3.18	5.94	3.67
TPW-1 **	366232.15	2204912.59	12.15				7.92	4.23				8.28	3.87	6.52	5.63
TPW-1	FREE PRODUCT DEPTH						NP					NP		NP	
TPW-2 **	366304.88	2205010.74	10.61				9.10	1.60				9.08	1.64		
TPW-2	FREE PRODUCT DEPTH						9.00					8.95			
TPW-3 **	366405.18	2205026.60	13.45				11.85	1.60				11.72	1.73	10.32	3.13
TPW-3	FREE PRODUCT DEPTH						NP					NP		NP	
TPW-4 **	366462.32	2205084.36	14.88				14.20	1.44				13.98	1.61	12.78	2.90
TPW-4	FREE PRODUCT DEPTH						13.32					13.15		11.85	
TPW-5 **	366412.44	2205153.22	14.87				14.09	1.34				13.99	1.36	12.92	2.92
TPW-5	FREE PRODUCT DEPTH						13.44					13.43		11.79	
TPW-6 **	366617.42	2205191.68	15.66				15.00	1.43				14.72	1.48	14.57	2.98
TPW-6	FREE PRODUCT DEPTH						14.10					14.09		12.37	
TPW-7 **	366561.47	2205099.05	14.34				12.76	1.59				12.72	1.71	11.49	3.23

**Table G-1**  
**Appendix G, Potentiometric Surface Survey**

Groups I and II RFA/SV Report  
 U.S. Naval Station  
 Mayport, Florida

WELL/LOCATION	X EASTING ST PLN			Y NORTHING ST PLN			Z ELEV (MSL)			WATER LEVEL		WATER LEVEL		WATER LEVEL	
										8/17/94	8/30/94	9/21/94	8/17/94	8/30/94	9/21/94
										DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)	DEPTH (TOC)	ELEV (MSL)
TPW - 7										12.75	12.62	11.05			
TPW - 8 **							14.65			12.98	12.78	10.15			4.50
TPW - 8										NP	NP	10.15			
STAFF GAGE CG															
STAFF GAGE MU															
STAFF GAGE NB															
FUEL PIER STAGE							11.30					10.50			0.80

**APPENDIX H**  
**RESPONSE TO REGULATORY**  
**COMMENTS**

## **PROJECT REVIEW COMMENTS**

### **Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report Groups I and II SWMUs U.S. Naval Station Mayport Florida**

---

#### **INTRODUCTION**

ABB Environmental Services, Inc. (ABB-ES) under the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract, No. N62467-89-D-0317, is conducting a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) on behalf of the U.S. Navy at Naval Station (NAVSTA) Mayport, Florida. This investigation is being conducted in accordance with the Hazardous and Solid Waste Amendment (HSWA) permit No. FL9-170-024-260, issued by the U.S. Environmental Protection Agency (USEPA) on March 25, 1988 and revised and reissued June 15, 1993.

The purpose of this document is to respond to comments made in correspondence dated June 6, 1995 and June 7, 1995, by the Florida Department of Environmental Protection (FDEP) to Department of the Navy, Southern Division Naval Facilities Engineering Command, concerning the Final Resource Conservation and Recovery Act Facility Assessment Report, Group I and II Solid Waste Management Units, U.S. Naval Station Mayport, Florida, dated April 1995. Comments by the U.S. Environmental Protection Agency (USEPA) were discussed in a NAVSTA Mayport Partnering Meeting on June 22, 1995, and are documented in the minutes for the meeting. USEPA's comments are addressed in revisions to the report. The report is organized to include:

- Section 2.0 contains responses to comments made by FDEP's Technical Review Section in correspondence dated June 6, 1995; and
- Section 3.0 contains responses to comments made by FDEP's Natural Resource Trustee in correspondence dated June 7, 1995; and
- Section 4.0 contains response to comments made by FDEP's Technical Review Section in correspondence dated August 21, 1995.

## **PROJECT REVIEW COMMENTS (Continued)**

### **Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report Groups I and II SWMUs U.S. Naval Station Mayport Florida**

---

#### **Response to FDEP Comments in Correspondence Dated June 6, 1995**

1. **There are several references to the Federal National Contingency Plan (NCP) where it is stated that "for carcinogen, a lifetime excess cancer risk in the range of  $10^{-4}$  .... to  $10^{-6}$  represents concentrations that are protective of human health." The Department has, as a goal, cleanup levels for individual carcinogens corresponding to an incremental cancer risk of  $10^{-6}$  for the most-exposed individuals. Because cancer risk from multiple agents is additive and sites rarely involve exposure to only one carcinogen, the cumulative cancer risk posed by contaminants at most sites should be considered and the above statement from the NCP is not consistent with the stated position of the State of Florida with respect to acceptable risk levels.**

At the time the report was prepared, USEPA and FDEP had conflicting guidance on presentation of excess cancer risks for carcinogens. During a meeting held on May 1, 1995, FDEP provided guidance that remedial goal options (RGOs) proposed for a site should include values representing an excess lifetime risk of  $10^{-6}$  for carcinogens or a hazard quotient of 1 for noncarcinogens. However, the purpose of this report is not to provide RGOs but to assess whether a RCRA Facility Investigation (RFI) is required for the site by confirming whether contamination is present at concentrations that may pose an adverse risk to human health or the environment. Therefore, target analytes detected in the media sampled (soil, sediment, surface water, groundwater) were screened against criteria that included excess lifetime risk values of  $10^{-6}$  for carcinogens and hazard quotients at .1 or 1 for noncarcinogens. Excess lifetime risk values and hazard quotients for chemicals detected in individual media were summed separately for carcinogens and noncarcinogens (please refer to Appendix C).

The default assumptions used in estimating risk based bench mark concentrations may not be representative and likely overstate the specific exposure present at a site (i.e. underestimate the concentration that would result in a lifetime excess cancer risk of  $1 \times 10^{-6}$ ). Because the chemicals were detected in only one or two media (i.e. soil and or groundwater) all of the exposure pathways used to estimate the bench mark concentrations are not relevant. Therefore, the concentrations observed at the site may exceed the bench mark values (USEPA, 1994, USEPA, 1995, and FDEP, 1995) but actually result in a lower excess cancer risk than  $1 \times 10^{-6}$ .

2. **Reference is made to FDEP guidance documents (McDonald, 1993; Cleanup Goals for the Military Sites in Florida, July, 1994) which have been revised. In some cases, changes are slight, but in others, new elements or compounds have been added (such as beryllium in soil and benzo(a)anthracene in sediment). Please utilize the latest guidance documents in preparing the final document as conclusions and possibly recommendations may change.**



## **PROJECT REVIEW COMMENTS (Continued)**

### **Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report Groups I and II SWMUs U.S. Naval Station Mayport Florida**

---

Since the writing of the RFA, the State has released new guidelines for sediment quality ("Approach to the Assessment of Sediment Quality in Florida Coastal Waters", MacDonald 1994) and soil cleanup levels (Soil Cleanup Goals for Military Sites," FDEP, April 5, 1995). These guidance values are used in the final version of the RFA Sampling Visit Report for Group I and II SWMUs.

3. **I suggest that, during future sampling events, an additional sampling site be added to Site 49 at the discharge point for the helipad flyup rinse area as we have previously discussed.**

The follow up investigation (ecological risk assessment) of SWMU 49 will include sampling at the discharge area for the helipad flyup rinse.

4. **On page 4-7, Table 4-2, reference number 6 incorrectly relates Chapter 62-302 to the Florida Legislature, 1995. Please correct this error.**

The citation will be updated to reference Chapter 62-302 of the Florida Administration Code (FAC) as amended in 1995.

5. **Table 7-10, page 7-31 presents Water Quality Parameters for SWMU 48. This should be SWMU 28. Please correct it.**

Comment acknowledged, corrections will be made to correct discrepancies between text, tables and figures.

### **Response to FDEP Comments in Correspondence Dated June 7, 1995**

1. **Table 3-4 (CPCs in Surface Water Samples at SWMU 49), p. 3-11, screens constituents to Ambient Water Quality Criteria (AWQC), Florida Surface Water Quality Standards (FSWQS), and Background (BG). Where was the background sample locations? All background sampling locations for all media should be included in the text and on figures.**

In an effort to reduce the redundant presentation of background information for the NAVSTA Mayport Corrective Action Program, information such as the location of background samples (surface and subsurface soil, surface water, sediment and groundwater samples) and analytical results are provided in the NAVSTA Mayport RCRA Corrective Action Program General Information Report (GIR) (ABB-ES, 1995).

2. **Section 3. 5. 2, (Recommendations), p.3-33, discusses what possible action should be taken at SWMU 49; either no further action (NFA) or a monitoring program. The fact**

## **PROJECT REVIEW COMMENTS (Continued)**

### **Resource Conservation and Recovery Act (RCRA) Facility Assessment Sampling Visit Report Groups I and II SWMUs U.S. Naval Station Mayport Florida**

---

*Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments* (Long and others, 1993). Tables and text for sediment samples collected at SWMU 50 will be amended to reflect these comparison of the analytical data to bench mark concentrations in these two references.

The selection of a background sampling location is always difficult and controversial. The purpose of a background sample is to identify chemicals that are naturally occurring and introduced through man's activities. The selection of background sampling locations at NAVSTA Mayport is particularly difficult in that almost the entire facility has been created from material dredged from Mayport Turning Basin. The collection of surface water and sediment samples from the St. Johns River and Mayport Turning Basin were conducted to provide data from a similar environment from which SWMU 50 was constructed. However, it should be noted that long and short term comparability of the analytical data may be biased because of the routine dredging of both the St. Johns River and Mayport Turning Basin, variations in water quality with tidal fluctuations, and season of the year.

#### **Response to FDEP Comments in Correspondence Dated August 21, 1995**

1. **The term "benchmark values" is used frequently. Please insert a brief explanation of the meaning of the term.**

The term "benchmark values" is used to generically refer to human health or ecological based chemical concentrations for individual chemicals that have been used in the preliminary risk evaluation of analytes detected in surface and subsurface soil, surface water and sediment, and groundwater samples. The source of the benchmark values are discussed in the findings section for each SWMU. The sources of the benchmark values are included in the reference section of this response to comments and in the Group I and II RFA report.

2. **Section 4.5.2: add small mammals such as racoons, foxes etc. to this section.**

The last sentence of the fourth bullet on page 4-13 will be revised to include mammals and reptiles and will be stated as follows. These areas are viable habitat for small mammals, reptiles and birds.

3. **Beryllium is misspelled in Table C-3.**

Comment acknowledged, the table will be amended.

4. **Tables C-3, C-8 and C-9 refer to units as mg/l; they should be mg/kg.**

Comment acknowledged, the tables will be amended.

**PROJECT REVIEW COMMENTS (Continued)**

**Resource Conservation and Recovery Act (RCRA)  
Facility Assessment Sampling Visit Report  
Groups I and II SWMUs  
U.S. Naval Station  
Mayport Florida**

---

5. **The SWMU number on Table C-7 is missing.**

Comment acknowledged, SWMU 28 will be added to the table.

6. **The response to comments by the Natural Resource Trustee (section 2.3 and 2.4) incorrectly refer to the Technical Review Section.**

Comment acknowledged, the text will be amended to indicate Natural Resource Trustee.